

# JOURNAL

## OF THE

# MADRAS UNIVERSITY

### *Editorial Board*

P. J. THOMAS, M.A., B.LITT., Ph.D., *Editor*

- |                                  |                               |
|----------------------------------|-------------------------------|
| 1. DR. A. G. HOGG, M.A., D.LITT. | 5. MR. V. K. AIYAPPAN PILLAI, |
| 2. MR. W. E. SMITH, M.A.         | M.A.                          |
| 3. MR. M. S. SABHESAN, M.A.      | 6. MR. C. J. VARKEY, M.A.     |
| 4. MR. K. A. NILAKANTA SASTRI,   | 7. MR. S. VAIYAPURI PILLAI,   |
| M.A.                             | B.A., B.L.                    |



PUBLISHED BY THE UNIVERSITY

MADRAS

PRINTED AT THE DIOCESAN PRESS, VEPERY

1933

## TABLE OF CONTENTS

	PAGE
1. CIVILISATION AS A CO-OPERATIVE ADVENTURE. <i>The Principal Miller Lectures, 1932.</i> By Prof. A. R. Wadia, M.A. (Cantab.) ... ..	1
2. THE NATTUKOTTAI CHETTIYARS. A Community of Bankers. By P. J. Thomas... ..	27
3. THE VELLALAS OF ANJANAD. By L. A. Krishna Iyer, M.A. ... ..	39
4. SOME ASPECTS OF THE VAYU PURANA. By V. R. Ramachandra Dikshitar, M.A. ... ..	57
5. THE SUVARṆASAPTATI. S. S. Suryanarayana Sastri, M.A., B.Sc., Bar-at-Law ... ..	81
6. PRELIMINARY OBSERVATIONS ON SOME POLYCHÆTE LARVÆ OF THE MADRAS COAST. By R. Gopala Ayyar, M.A., M.Sc. ... ..	115
7. UNIVERSITY NOTES ... ..	157
8. REVIEWS AND NOTICES ... ..	162

## TABLE OF CONTENTS

	PAGE
1. ANCIENT SOUTH INDIAN POLITY AND ITS BEARING ON OUR PRESENT PROBLEMS. By RAO BAHADUR DR. S. KRISHNASWAMI AIYANGAR, M.A., Ph.D., M.R.A.S., F.R.Hist.S., F.A.S.F. ...	169
2. POOR RELIEF IN THE CITY OF MADRAS. <i>(With special reference to the Problem of Professional Begging.)</i> By MISS TERESA JOSEPH, M.A., B.SC. (Econ.), Professor, Queen Mary's College, Madras ...	195
3. A STATISTICAL STUDY OF THE PRICES OF FOODGRAINS IN THE MADRAS PRESIDENCY FROM 1874 TO 1930. PART I. By N. K. ADYANTHAYA, B.A. (HONS.), B.SC. (Lond.), <i>Lecturer in Statistics, University of Madras</i> ...	233
4. SOME ASPECTS OF FRESH WATER FISHERIES IN INDIA. By DR. C. C. JOHN, M.A., D.SC. (Lond.), D.L.C. ... ..	239
5. UNIVERSITY NOTES ... ..	255
6. REVIEWS ( <i>See next page</i> ) ... ..	257
7. SUPPLEMENT— AN INDIAN FEDERATION. : By DEWAN BAHADUR A. RAMASWAMI MUDALIAR, M.L.A. ...	1

## BOOKS REVIEWED

---

1. J. CHINNA DURAI: *Hindu Law in a Nutshell*. By N. S. Sundaram, M.A., Bar.-at-Law.
2. M. N. SETH: *Six Lectures on Atomic Physics*, by P. E. Subrahmanya Iyer, M.A.
3. HARAPRASADA SASTRI: *Magadhan Literature*, by K. A. Nilakanta Sastri.
4. SAMADDAR: *The Glories of Magadha*, by K. A. Nilakanta Sastri.
5. BISHWESHAR NATH REU: *History of the Rashtrakutas*, by V. R. R. Dikshitar.
6. N. K. BHAGWAT: *Buddhist Philosophy of the Theravada School*, by V. R. R. Dikshitar.
7. A. P. BANERJI: *Early Inscriptions of Bihar and Orissa*, by V. R. R. Dikshitar.
8. J. A. HUBBACK: *Indian Banking*, by P. J. Thomas.
9. *Educational Survey (League of Nations)*, by P. J. Thomas.

# CIVILISATION AS A ~~CO-OPERATIVE~~ ADVENTURE

THE PRINCIPAL MILLER LECTURES, 1932.

BY

PROF. A. R. WADIA.

## *Lecture II*

In my last lecture I rigidly avoided direct references to the present. I thought it safer to concentrate on the past and learn from it as much as we could before venturing to speak of the living present. We are too much in it to see things clearly or as a whole. Our likes and dislikes obsess us at every stage; the shadows of life stand out far too prominently and cast a gloom over the sturdiest heart. We have not yet recovered from the devastating effects of the greatest war in history, when the prospect of another great war raises in us the gloomy reflection whether the civilisation that the hands and brains of so many nations have built up is not on the threshold of disruption. But if the past has any lesson to preach, it is this: that nothing great has ever emerged in human history without a prelude of utter despair. And the present may have yet in its womb something great, something noble which is to carry humanity to some yet higher peak than any the past has seen. This is indeed optimism, but not of that shallow variety so witheringly satirised by Voltaire two centuries earlier in his *Candide*. If optimism can be shallow, so can pessimism be with the additional disadvantage that it saps our energy and makes us mere futile Cassandras. Far better is it to repeat with Shelley: ' . . . . . O wind, If Winter comes, can spring be far behind?' China is passing through a painful crisis, but need she despair? Is it not true, though paradoxical, what Dr. Will Durant has said: 'They (the Chinese) lose every war and win every peace'? And why? Because, he says: 'Surely the future must belong to a nation that can be happy without money, content without love, strong without good food and healthy without soap'. Such a nation is the Chinese.

Bearing the lessons of the past in mind, I should like to consider to-day the significance of the present for the future. The most outstanding event of the last hundred years is the complete dominance of the European civilisation in the whole

world. Only a partisan would be so bold or so foolish as to say it is perfect—perfection is not given to mortal nations. But it would be equally foolish not to see that it could not have succeeded to the extent it has, unless it had something very vital in it: a daring adventurousness, bold initiative, grit and a power of organisation and capacity to unite, a cunning inseparable from imperialism, and yet a vision which catches time by the forelock. The West too is in its own way wedded to the past, but refuses to be dominated by the past or to be a slave of the past. Yesterday I sought to bring out the interesting fact that civilisations whether in the East or the West had grown and prospered by their willingness to learn. China was willing to learn and did learn from India and so did eastern Asia generally. Greece learned from Persia as much as Judæa did, and Persia was not slow to benefit by imbibing Hellenism. The Arabs assimilated the culture of the Persians as much as the religion of the Jews and the Christians. And through this culture they came to rekindle the dying embers of culture in Europe. Persian Sufism was but a new edition of Indian Vedanta. Would it be incorrect to say on the basis of these facts that Judæa died to live in Christianity; Greece of the city-states died to live in Macedon and then in the Roman Empire; Rome died to live in Europe; Persia died to let Hellenism enter Asia and later again to live in the glories of the Mahomedan Khilafat, and still later in the Moghul Empire of India?

I venture to suggest that the death of civilisations is not so final as at first sight it appears to be. The parents live in the children long after their sojourn on this earth has come to an end. But for this continuity which runs through every department of the world we should not have that slow but steady building up of all that has made humanity great and dominate the world. If there be truth in the immortality of the soul, we are in a position to realise how each individual human life dies to live afresh. The same law applies to the so-called 'death' of civilisations.\* If there is any vitality in them, they must live in a wider environment to fructify a wider world.

The only death that civilisations can know is the slow lingering death of stagnation. But even here some providential

hand makes its appearance just when a civilisation seems to be stagnating too much, for what Time has built up with infinite patience and labour it is unwilling to see decaying and perishing. A monstrous polytheism with its endless tribute of men and maidens was corroding the life of Babylonia and Egypt and there came the vivifying spiritual breath of Zoroastrianism. The Vedic culture was sinking under ritual and caste, and Buddhism was born. The Chinese culture was tending to be too self-centred and Buddhism came in good time. Greece and Rome were languishing for something truly spiritual, and Christ came with his message of universal peace and love. Zoroastrianism was languishing in Persia and the wave of Mahomedanism revived its flickering spirituality. Europe in its ascetic mood was sunk in darkness and the needed spur came from the Saracens. The East was languishing in its so-called spirituality and it had to be stirred up to new life, and the disturbing factor came in the form of the traders and adventurers from the West. Socrates boasted that he was a gad-fly to Grecian society and Napoleon did not inappropriately adopt the stinging bee as his emblem. Human pride and self-complacency need to be pricked, and the powers that guide human life see that this pricking is done whether its victims like it or not. Lessing appears to be correct when he said that 'contingent truths of history can never prove eternal truths of reason', but it is doubtful whether history is merely contingent and whether there are any truths which all would accept as absolutely eternal. On the contrary history shows that whenever any people flattered themselves that they alone were in exclusive possession of truth and therefore had to learn nothing from others, they invariably came to grief in the realm of spirit as much as in that of matter.

The world to-day is confronted with three main problems: economic reconstruction, internationalism and racialism. All these three problems are very closely interconnected and it would be interesting to see how far the world can hope to solve these problems.

# I

It may not be possible for us to accept whole-heartedly the materialist philosophy of history for which Karl Marx

and the Bolshevists have made themselves responsible. But it would be futile to deny the core of truth it has: the prime need of satisfying our economic needs. The growth of empires may have been due to the overweening lust for power in individual conquerors and incidentally may have had remarkable repercussions in the realm of spirit. But as often as not, they have been due to a need to find out new sources of food supply or new markets for superfluous products. The imperialism of Europe to-day as well as its nationalism and racialism have an economic basis and to that extent the Bolshevik interpretation of history cannot be wholly gainsaid. In fact it is the hope of solving the hunger problem, the hope of doing away with the constant dread of unemployment, the weakest point of capitalist economics, that has been responsible for the large and growing number of recruits to the ranks of communists. Communism is an assertion of human equality and the right of every man to live. It is conscious of the great achievements of science especially in the direction of food production and the rapidity of food transmission, and therefore Bolshevism no less than capitalism bases all its hope of success on industrialism, of which the Five Year Plan is but a first instalment. Years ago when the very existence of Bolshevism seemed a dim and distant dream, Prince Kropotkin in his *Conquest of Bread* had emphasised the possibility of science hastening the day of minimum labour with the maximum of food supply. If the dream comes true, it will come true only through industrialism. The East will have to follow suit or go under more and more. I have read few more striking things than the essay by a Chinese scholar, Mr. Hu Shih.<sup>1</sup> In that essay the fundamental weakness of eastern age-worn economics as compared with the go-ahead methods of the West is brought out with withering scorn. The civilisation of the bullock cart has no chance to compete on equal terms with the civilisation of the motor car. Industrialism is something good in so far as it is the expression of the human need to create more and more, but it has its palpable limitations in so far as more and more creation may lead to reckless over-production and the exploitation of

weaker countries as convenient dumping centres. Organised production means organised control, which can only be effectually exercised by the state. Therefore the state is a logical necessity of human nature and it is an idle dream of the Bolsheviks that they will be able to do away with it at any time. So Bolshevism by itself cannot hope to achieve peace. With the existence of independent states the chances of jealousy and clash remain and that gives the point to the need for a sane internationalism.

The existence of backward countries is a great danger to the peace of the world, for they are a perpetual temptation to the aggressive human nature of the strong. But is there anything in human history to justify the view that some nations—the coloured nations from the standpoint of the white imperialists—are eternally doomed to be mere carriers of water and hewers of wood? Thus behind internationalism lies racialism. Men like Houston Chamberlain in Germany and Gobineau in France and the racial imperialists in the British Empire, whose names are so well known that they need be hardly mentioned, believe that the brown and the black have no right to an independent existence.

Racialism is strongest in the United States and the British Empire, particularly South Africa. The South African whites waste no time in any subtle camouflaging of their real aim to rule Africa in their own interests. They do not hesitate to declare that 'no ethical considerations such as the rights of man will be allowed to stand in the way.' They proceed on the assumption that, 'the Negro must always be treated as a child and given some form of manual education that will increase his efficiency as a labourer; but he must not be taught letters, as they would muddle him with ideas that he could never appreciate'. Even so level headed a statesman as General Smuts thinks that the 'easiest, most natural and obvious way to civilize the African native is to give him decent white employment. White employment is his best school; the gospel of labour is the most salutary gospel for him'. The position of the Negro in Africa is about the gloomiest picture in the world to-day, for without the traditional advantages of culture and a high religion that the people in other parts of the world can command, the unfortunate Negro seems to have a

very dark future before him, unless the Negroes of America will ever be in a position to do what they can for the uplift of their race.

Japan has been an eye-opener to the East as well as to the West. That there is nothing specifically western which under suitable conditions and with suitable modifications cannot be transplanted to an eastern sky has been proved by Japan. It has given a lie to the idea that there is anything in which the West can enjoy a perpetual monopoly. Under the aggressive militarism of the West, the East had been so cowed down and its spirit so broken that it seemed an idle dream that the East could ever compete with the West. This miracle was performed by the Japanese within the short space of forty years, and it has given rise to a new orientation of values, the significance of which has not been lost on the whole of Asia, including of course India and also Egypt and Turkey. Japan has once again proved the age-old lesson of history that isolation does not pay, that refusal to learn whatever new can be learned spells death. Japan has been westernised, but has not lost her peculiar characteristics. She has borne witness to the fact that the East lives and is not sunk in the inactivity that masquerades under a defunct spirituality. Turkey and Persia have had to learn the same truth, and whether orthodox mullahs like it or not they have forged ahead. In the study of the Japanese Renaissance we have to acknowledge that it is not merely western industrialism and western militarism that have played their part. Christianity with its emphasis on social service has played a part which the Japanese and the Chinese themselves are not slow to admit. And yet the Christianity of the Japanese is nearer liberal Buddhism than to the Fundamentalist Christianity, as Dr. Pratt himself admits. In China, we learn from the personal observations of the same writer, there is a definite Buddhist revival and an attempt to reconstruct Buddhist theology on the lines of modern philosophy. In this revival Christianity has been acting both as a rival and a friend and the Chinese themselves are not slow to admit that Buddhism owes its revival to the labours of western scholars. Perhaps the most interesting way in which this mutual reaction between Christianity and Buddhism has been acting can be seen in the

case of a Buddhist young girl, who is made by Dr. Pratt to tell her story in her own words: 'At the age of 19 I made a vow before Buddha that in this life I would never marry but give my life to Him as a nun. I have kept this vow for four years and many times I wanted to shave off my hair, but was prevented by my parents. I am sorry that I cannot be a nun early in life. I have three friends with the same mind. . . . At first we thought that by becoming nuns we would escape from the world's misery and sorrow, enjoy peace and work off by penance some of our sinfulness. Furthermore by becoming nuns we sisters could live together and never be separated, which is supreme joy. But now after reading Hai Chow Yin, we know that to forsake the world is to benefit others, not ourselves. Having known this, my will to be a nun has become stronger than ever.' It was really the discovery of Buddha that the only real renunciation is the service of mankind, but it was lost, for men find it easier to idle away their time in what they call meditation than in actual service, and modern Christianity has rediscovered the old truth. Even secular pursuits ethically pursued are really a spiritual occupation. Spirit has got the power to spiritualise all that it touches and Leigh Hunt's Abou Ben Adhem was right when he made no secret that his first love was for mankind, and yet his name was first in the list of those who loved God.

When I come to speak of Hindu India I must plead guilty to extreme perplexity. On the one hand as a student of philosophy I am attracted by the sublime thoughts of the Upanishads or of their later superstructure as revealed in all the schools of Vedanta. The Gita has a vigour, a universality which has a message as great as any other sacred book, and yet it is steeped in philosophy as no other sacred book is. But when we look round as to its actual significance for mankind we find that it has been confined more or less to India and even here not to all Hindus. Hinduism whether as a religion or as a system of thought has not had that triumphant career as a world force that Zoroastrianism and Buddhism, Christianity and Mahomedanism have had. Its depth, its message have become exclusive possessions. It is a paradox and a very perplexing one. I have thought about it and my conclusions

may be wrong, but I shall have the courage to place them before you for what they are worth. I shall be content, if my remarks provoke you to thought.

The source of India's weakness has all along been in its unabashed emphasis on caste. The principle of caste is the feeling of aristocracy and is the negation of that fundamental truth: the unity of mankind, which has been the message of the greatest thinkers all over the world. That was the burden of what Zoroaster in Persia, Buddha in India, Confucius in China, Christ in Palestine and Mahomed in Arabia taught and there are no higher names than these. I am inclined to think that the Gita is capable of interpretation in terms of universalism, though one has to despair of making the punditic mind do so. Whatever justification the caste organization may have had in the days when the fair Aryans from the snowy Central Asia found it necessary to defend themselves against the native Dravidian population, it is questionable whether its continuance has not on the whole done more harm than good.

To do full justice to all the aspects of the caste system would take much longer than the space I can devote to it as a principle of civilisation in this lecture. One thing is certain which would be admitted by the most orthodox that the caste in its origin was nothing so rigid as it has come to be. I do not agree with those who regard it as a Dravidian institution. It was unquestionably Aryan, for it existed in ancient Persia, where there were no Dravidians. It must have been economic in its origin, though in India in virtue of its contact with the Dravidians it very soon developed a racial tinge, which has clung to it right through. It was an ingenious experiment for the solution of the racial problem, but it was no more successful than the segregation thrust on the Negroes in America to-day, though the Negroes have had a much better scope for development than the jungle tribes and the untouchables generally have had in India. It is disagreeable to admit, but unfortunately true, that Hinduism has not had the same civilising influence on the lowest strata of the people in India as Christianity has had on the lowest classes in Europe or on the American Negroes, or Mahomedanism has had on the wild tribes of Northern Africa. But no segregated

community is above exercising its evil influence in a subtle fashion and thereby proving their brotherhood with the higher castes in much the same way as the unfortunate Irish widow of Carlyle succeeded in proving her sisterhood by infecting seventeen people with typhus. The lower forms of worship current among Dravidians have penetrated the purer forms of Vedic worship, and hence the enormous gap which divides the pure heights of Hindu philosophy from the crude anthropomorphism and mythology of the ordinary Hinduism of the masses with their animal sacrifices and endless ritual. It is true that a good many of these things can be ingeniously explained away as mere symbolism, but the unfortunate fact remains that there is hardly one in a hundred to understand the symbolism, while the remaining ninety-nine hardly get a chance of understanding its esoteric religious significance. It is an iron law of history that when two cultures come into contact with each other the higher must raise the lower to its own level or it must run the risk of being brought down to the level of the lower. No better example of this can be found than in the history of Hinduism. The caste with its sense of superiority has generated a power of resistance, which drove Buddhism into exile and even the strong waves of Mahomedanism and Christianity have just succeeded in ruffling the surface without dislodging the aristocratic feeling. Successive influences have produced reformed sects, which after a few generations have lapsed into new castes. Jainism and Veerasaivism and Sikhism, Brahmos and Arya Samajists have just become branches of the Hindu polity. A large-hearted catholicity marks the poets of the Bhakti movement, but the sentiment figures more as a truth to be understood than as a precept to be practised. Unable to weld together its own component units into a strong phalanx of effective resistance to external attacks or to withstand inward decay, it has been still less able to enter into a real unity with the various other communities, large and small, that have found a home in India, and to the prejudiced observer it is no wonder if India presents just a spectacle of congeries of communities, which neither human love nor the amenities of the dining floor can bring together. Swami Vivekanand had the courage to admit the decay of Hinduism and did not hesitate

to declare that Hindus had become mummies ten thousand years old.

'Any one who is obsessed with his own importance and is unwilling to learn from others is apt to be left behind in the surging tide of advancing knowledge, and to cherish the idea that Sanskrit learning attained such perfection that there is nothing more to learn from modern knowledge is on a par with the fatuitous statement traditionally, though wrongly, attributed to Caliph Omar that all books except the Koran should be destroyed, for if they contained what was in the Koran they were superfluous, and if they contained anything that was not in the Koran they were not worth reading. The pundit of to-day has become a fossil. Compared to the other oriental countries the progress that India has made in modernism has been very disappointing. Our universities have failed to play a bold part in social reform and this has hindered our political progress as well. Hegel a century ago made the most astute remark that 'it is a false principle that the fetters which bind right and freedom can be broken without the emancipation of conscience—that there can be a Revolution without a Reformation'.

The Hindu Law in its early history reflected the evolution of social changes, but we have to-day a practical immobility of social institutions, though the world has moved for a thousand years. The Committee appointed by the Government of His Highness the Maharaja of Mysore to review the rights of women under the Hindu Law has produced a document, which ought to mark a landmark in the history of social legislation in India. It had the advantage of being presided over by a far-seeing and enlightened Chief Justice of the Mysore High Court: Dewan Bahadur K. S. Chandrasekhara Aiyar. Speaking of the joint Hindu family the Report says: 'Under the impact of modern conditions and the consequent growth of the individualistic spirit—with its sense of legal rights and personal interests—it is visibly breaking up, a phenomenon which cannot be arrested and need not be regretted'. And yet when an important piece of social legislation comes up, we find our enlightened members of the legislative assemblies busy creating a lack of quorum or putting it down with the official block. Perhaps they are right in fearing premature legislation,

which will be openly defied by the masses, but then we find no strenuous steps taken to cultivate public opinion on social problems or to create a social conscience against the existence of evils, whose only claim to exist is that they are centuries old. Is it not a sufficient condemnation of the caste system as a social or a moral institution that during the last hundred years the very best Hindus, who can really claim to have done something for their country whether in politics or science or literature or even more in religion itself, were all condemned with more or less intensity to the rigours of social ostracism? Is it not a greater condemnation of it that many good souls, who would willingly be different from what conventions expect them to be and yet lack the requisite courage, are doomed to hypocrisy : pretending to be orthodox, while both their head and heart revolt against orthodoxy?

It is significant that Indians inspite of the advantage of coming into contact with the advanced thought of modern Europe much earlier than other easterners, in social matters still lag far behind Japan and China, Egypt and Persia and certainly behind Turkey. All these countries have seen through the patent fact that unless they imbibe the highest culture of the present age, mere whining about national culture will not help them. It is futile to expect to race bullock carts with motor cars, or to return the charge of machine guns with a shower of arrows. They who have power will use it for themselves, a simple political truth and yet so hard to digest. The *Zeit Geist* is ruthless in its march. The patriotism of Brutus did not avail against the inevitable death of the Roman Republic any more than the patriotic but sentimental philippics of Demosthenes had availed to stem the rising tide of Macedonian power.

Japan was the first and remains the greatest eastern power to awake from the sleep of ages and furnishes one of the most astounding miracles of history in its capacity to learn and sacrifice all narrow considerations. It is a most unfortunate trait in human character, which has been responsible for most of the evils in life, that those who possess power or privileges do not give them up, when larger interests require that they should be given up. In this respect it is noteworthy that the Samurai of Japan, the hereditary aristocracy, had the vision to

see that any further continuance of their privileges would end in Japan becoming a dominion of some European nation and they gave up their hoary privileges and reaped the full reward of their self-sacrifice: they have built up Japan and broken the spell that was reducing the East to a state of helotage. One could indeed wish that she had not developed that imperialism which is creating havoc in China to-day, but it would be wise to await events and see the good that may come out of this evil. Perhaps this aggression may serve to weld together the centrifugal forces in the Chinese Empire. We must all be glad that China even in her misfortunes is proving to the world that she is awake and alive, that the unchanging China is changing fast under the pressure of circumstances.

I am afraid I give you the impression that I am emphasising the importance of the modern culture of the West far too much. I do not mind pleading guilty to this charge, for I stand by human spirit. The East and West are just geographical terms, to designate, not different species, but just different branches of the one great human family. The West has grown to its present stature, because it did not disdain to learn: ancient Greece from Egypt and Persia and even from far-off India. Europe took her religion from Palestine. She took up her printing and gunpowder and mariner's compass from China. She did not despise Plato and Aristotle because they came in Arabic garb from the Saracen. She is always prepared to learn and hence has become the ruler of the world. We in the East gave in abundance in the past and there is no shame now in learning from the West whatever is necessary, but while learning, we cannot overemphasise the need to be critical. The West is but human and has its full share of human weaknesses.

The most common criticism levelled against European civilisation is that it is materialistic. We are rather apt to flatter ourselves that we are spiritual and thereby soothe our defeatist consciousness. Verbiage and sentiment apart, the significance of materialism and spiritualism has to be comprehended before we can pride ourselves on spirituality or condemn others as materialistic. When an Indian generally speaks of the western materialism, he has in mind the industrial

system and the power of the machinery which so dominates life in Europe and America. But it is questionable whether the invention of machines is really inconsistent with a deep spirituality. A machine is a mere tool, an instrument to help man in his struggle for existence. With the development of pastoral life useful animals came to be tamed and dominated by man for his own purposes. With the discovery of agriculture the cattle and the horses rose in value, so much so that even to-day the cow or the buffalo is worshipped, since the purely economic origin of their importance has come to be forgotten. To the nomads in the desert the camel and the horse are as dear as life itself. For centuries animals have been recognised as instruments of human life whether in the East or the West, and who would venture to argue that animals have been less material than the machines in our factories or the motor cars on the roads? Every discovery, every new invention is a tribute to man's genius and is an expression of his higher nature, I would venture to say of his spirituality. Animals do not create. If they dominate, they do so only by brute force or an inherited cunning associated with their instinctive life. But man is man by virtue of his intellect, his capacity to think, his capacity to invent new devices to meet new situations. In recent centuries this capacity for mechanical inventions has conspicuously flowered in Europe and America, but thereby far from showing that they are merely materialistic, the westerners show the strength of their inward spirit.

Materialism and Idealism are philosophical terms which signify the ultimate supremacy of matter and spirit respectively as the principle of existence. This is the only legitimate meaning of the terms and in this sense only those are materialists, who believe that matter is the only thing that exists, that even mind is only an epiphenomenon. That materialists of this type exist and have always existed in Europe is not to be denied any more than that in the fruitful history of Indian philosophy materialists like the Charvakas also flourished once. It is certainly remarkable that most of the European scientists, who have changed the face of the world through their epoch-making discoveries and inventions, are not necessarily materialists. Like people who really

know, they are conscious of their limitations, and the more they strive the more they understand how purposefully, how logically even nature works. Darwin's emphasis on natural selection has with deepened knowledge yielded place to Lamarckianism with its emphasis on teleology. The triumphs of psycho-analysis go to show that even the seemingly most absurd and nonsensical dreams have their inner symbolic logic and are full of meaning for those who have the gift and the patience to extract their secret. Indeed, life is too mysterious to be explained in terms of mere matter. The exact place of science is well understood by the great creative minds in the realm of science. The distortion of their teaching comes from lower intellects, popularisers who can only be compared to unproductive middle men in the realm of commerce. For a generation after the great work of Darwin and in the flush of first telephones and gramophones many philosophers were excited and on the point of enthroning matter as God, but since then with deeper knowledge and a deeper consciousness of what has yet to be learned, the present generation of thinkers has become more sober and is anything but purely materialistic.

If the West, however, can be absolved of the charge of philosophic materialism, it does not escape the guilt of a practical materialism, which centres round a worship of money. Wealth in the West literally covereth a multitude of sins. This has its legitimate corollary in this that men and women alike come to be appraised, not by what they are, but by what they look and what they have. One can understand how Carlyle came to write his great *Sartor Resartus*, but the very existence of men like Carlyle goes to show that the worship of the external form and the tailor's and milliner's art is by no means universal. The large army of Western scholars, buried in tomes of research as well as the large army of Western men and women, who dedicate their lives to some form of public service, go to show that the zest to serve is still there and explain the vitality of European civilisation. The sense of social service is still strong and contrasted vividly till recently with our inactive 'spirituality' in India. The desire to do away with the slums and the incidents of poverty is universal in Europe and America, and the effort to realise this desire is

laudable, while in India the huge majority are still at the stage when the existence of the poor and the down-trodden is looked upon as a divine dispensation, which only a sacrilegious and degenerate man thinks of disturbing. There is in our midst a good deal of tall talk of spirituality, but it is mostly confined to a meticulous performance of ceremonies and pilgrimages and preserving one's holiness by keeping masses of men at arm's length. If Christ taught that the touch of the holy sanctifies the unholy, spiritual India still believes that even the shadow of the 'unholy'—and this is merely a matter of birth—can pollute the 'holy', again a mere matter of birth. No wonder if our talk of our spirituality is not taken at its face value by the majority of the Westerners, for after all the real test of spirituality is to be gauged by what we do, and not by what we talk.

Is the West declining? We in the East with our more conservative ideas of life and manners are apt to answer this question in an emphatic affirmative, while the volumes of Spengler have given a new fillip to it. For Spengler the decline of the West is an inevitable phenomenon on the basis of a law deduced by him from a wide study of other civilisations in the past. Culture is what he adores, but when culture spreads, it becomes civilisation and the stage of civilisation marks the beginning of the decline. I cannot say that his general line of thought or his conclusions appeal to me as correct. His thought savours far too much of an aristocratic scholar who cannot come to appreciate goods of the soul aspiring to a place in the open market. Nor is there yet any reason to believe that either the physical or the mental vigour of the European shows the slightest signs of decay. Reports about the incidence of the venereal diseases or the lurid reports of night life in western cities may lead one to think that the West is burning its candle at both ends, but as against this we have to set to its credit side improved housing conditions, a fine system of physical education, spread of literacy and the development of a social conscience. In fact during my visit to Europe last year nothing struck me so much as the beautiful physique of the younger generation. An educational officer of the London County Council challenged any one to point out one foul mouth in the school children in London, so

confident was he of the immense attention paid to dentistry, a phenomenon which certainly did not prevail twenty years back in my own student days. I found everywhere health, and where disease prevailed, there were everywhere resources to grapple with it.

Yet there is no doubt that the decline of the West is inevitable. Europe for the last two centuries has been predominant. Her adventurous spirit, her organising capacity, her inventive genius put the rest of the world under a severe handicap. And this process of domination was fostered by the inferiority complex of the Asiatics and the Africans alike. Things are changing. The supremacy of the Westerner is no longer regarded as a divine dispensation, but as a matter of mere historical incidence. The non-European world has awakened from its sleep of centuries and is trying to make up for lost time. This will be achieved in course of time. Europe is bound to realise that her supremacy will be challenged and she will lose her dominating position both in commerce and in politics. It is only in this sense that the West will decline : but that is a matter of relativity. If the Europe as we know her to-day ever declines and dies, it will not be before she will have transfused her spirit into the rest of the world. History may repeat itself, but only by creating a better world.

Commercial supremacy and political dominance are bound to breed a class of the idle rich. Europe is full of them, though thanks to the rising tide of socialism the rich are becoming appreciably poorer. Even so, western cities to-day present an appearance of luxury and superficialities, which militate against the higher values of life. Hollywood may not be representative of the real West ; nevertheless the amount of space it occupies in the public mind is symptomatic of the corroding influence of luxury. We are not concerned to deny that the stars of the film-land are genuine artists, who have a contribution to make to the world of art, but the amounts they earn and the publicity they enjoy are out of all proportion to their exact place in the scheme of life. Behind their beauty and their wealth and series of romances ending in cycles of marriages and divorces, there may lurk—I am sure there lurks—an emptiness of heart, a void as to the deeper meaning of life.

And it is here that the materialism of the West stands out in all its naked ugliness. The empty round of pleasures : theatres and dances, surfeiting dinners and cocktail parties, and shortlived love episodes, which leave behind bitter memories of divorce courts and broken homes—these are indeed spots that darken the face of Europe and America even to-day at the zenith of their power.

It is with reference to this life of superficial existence, which finds its champions even in the ranks of philosophers, that the East becomes conscious of its superiority in spite of its degeneracy. The genius and the logic of thinkers like Lord Russell cannot prove that the immoral is moral in sex relations. Such advocacy points to a changing world, where every change is worshipped just for the sake of change. The East with its age long conservative traditions is more cautious, perhaps too cautious, and suspicious of any change, but to its credit it must be admitted that behind its conservatism there is an abiding consciousness that the life of wealth and giddy pleasures does not bring out the best in man, that life is too serious to be reduced to a round of hectic pleasures, and that money cannot measure the depths of life. This consciousness is inborn in India and is the most relieving feature of Hindu civilisation. Individual materialists there may be and are among Hindus as everywhere else, but the miracle of Puran Bhagat as so vividly portrayed by Kipling can happen only in India. It is not an idle boast that Buddha and Gandhiji could have been produced only by India. In the midst of the busiest life and greatest prosperity there suddenly comes to the Hindu a call of the saffron robe and out he goes with a beggar's bowl and staff. There is something majestic, something awe-inspiring in this. It has often served as a cloak for hypocrisy, it has often degenerated into a parasitical existence, flourishing on the credulity of the ignorant and the hard-earned money of the honest. But at its best this renunciation is something exquisitely beautiful, especially when it means renunciation for the sake of service. No country in the world other than India can boast of such a long line of recluses as have renounced their own individual happiness to leave the world better than they had found it. Such was Buddha. Such were Sankara and Ramanuja. Such were the mystics like Kabir and

Chaitanya, Tukaram and Chokemela. Ramakrishna Paramahansa is still a living memory. And there is Gandhiji, commanding in his simplicity and sincerity, evoking the homage even of those who differ from him.

It is not surprising that this capacity for calm suffering evokes the admiration of foreigners like Mons. Romain Rolland or Dr. Gilbert Murray, and of all those who have in their innermost being a deep consciousness of the eternal. That is why the westerners who feel distracted by the hurry and skurry of their native environment wistfully turn to India to secure that rest, that *ananda*, which through ages has been the quest of Indian sages. The East to-day, and particularly India, however, needs something of that nervy activity which is the characteristic of the full-blooded westerner; it needs that zest for social service which scorns individual peace of mind when there is a cry of suffering near by. On the other hand the West needs that spirit of calmness which would enable it to resist the incessant call of the flesh and to appraise life in all its bearings; it needs the strength of a calm spirituality which does not make its men and women victims of the passing moment, but actors in an eternal drama: the drama of life. India has much to learn, but she has much to teach. The sage of Kapilavastu and the sage of Sabarmati join hands across centuries and remind the world that India is still in possession of that spirit which produces prophets and philosophers.

## II

Hegel in his lectures on the Philosophy of History stopped with his own epoch on a note of exaltation of his own country. *Prima facie* it gives one the impression that for Hegel the world process ended with the supremacy of the German spirit. It is certainly questionable whether so deep a thinker as Hegel could have been guilty of so childish a conclusion. If he stopped where he did, he did so, because he stuck to the rigid interpretation of history as concerned with the past and not with the future. But if history is not brute contingency, if it is an unfoldment of some law or laws, it ought not to be impossible to foresee the trend of events. This is not to be confused with fatalism or a rigid determinism. Few would take Spengler

seriously when he is casting the horoscope of the future and points out determinate periods during which this and that will happen. As I have already pointed out, there is an uncertainty in the future: there is room for chance and accident and yet even chance and accidents have their own logic and their own significance. On the basis of the past it may be possible to say, not that this or that is sure to happen at this or that particular time, but that this or that is likely to happen. On the whole the history of mankind has shown a steady tendency towards bringing the peoples of the earth nearer to one another. It is a far cry from the isolated hordes of the prehistoric ages to our times when an earthquake in Japan is known the world over in five minutes and thousands of miles can be covered in as many hours as it took days not such a long while ago. It would be interesting to see if there is any justifiable basis for this interesting speculation that the future will see men more and more appreciative of and sympathetic towards one another. It is true that nationalism is still going strong and that nationalism has become as great a danger to the peace of the world as anything else in the world. But nationalism of the intense aggressive type is a matter of comparatively recent growth and there is no reason to take for granted that it will continue unabated in its present virulent form for all times to come. On the contrary there are already signs that the great leaders of thought in every country—always in a minority in their own country and in their own generation—are showing signs of revolt, of which the League of Nations is a tentative expression. It would be interesting to scan the horizon of our times and see what portents there are to hold out a hope, if not an absolute certainty, that humanity is on the eve of some further great evolution and that the ills of our age are but the birth throes of some coming great event.

In this great aim of bringing human beings nearer one another, Science has played a very important part. It is true it has wasted precious time and energy in manufacturing diabolical instruments of destruction, but this is only one aspect of it. So long as there is a demand for warfare, there will be the needed supply of more and more destructive weapons. But this apart, its work has been most distinguished in the realms of peace. We have grown so accustomed to all

the conveniences of modern life that it has become difficult for us to imagine how we or our ancestors got on without them for so many years. To hear a human voice speaking six thousand miles away or see on the screen a human being in his own far off native environment is in itself a new training in developing human sympathy. No wonder that there is a flutter in the ranks of the anthropologists that their world is disappearing far too fast under the pressure of modern life. One can appreciate their zest and the great work they have done to recreate the buried past, but it will hardly do to wish that old savage or semi-savage customs and modes of life should survive merely to give grist to the anthropological mill or to amuse the sentimental tourist from the West.

For all practical purposes distances which appeared to be interminable only a few years ago have disappeared and the most distant parts of the world have been brought nearer. It is inevitable that this will bring about more mutual knowledge and its natural corollary will be: more human sympathy and imitation. If the French adage is correct: to know all is to forgive all, it also holds that to understand is to appreciate. Half the miseries of ours are due to our stubbornness in holding that our country alone is right and the rest of the world is wrong.

The only corrective to a narrow chauvinism is culture and in this direction far more work has been done in our times than ever before. The treasures of European literature and philosophy have penetrated wherever the European has penetrated and that means practically the whole world. But it must be said to the credit of the European that he has been both generous and diligent in studying and popularising the old cultures of Asia so that we in the East have come to know our own cultures better through the work of the western orientalisks. As a result of it, not merely does the easterner roam through the corridors of European museums and picture galleries, fascinated by the countless beautiful Madonnas smiling from the walls and the superb specimens of human beauty handed down from the days of Phidias and Praxiteles, but the westerner too has grown to appreciate the dreamy beauty of Ajanta and the virile art of Ellora and the swift and delicate lines of the Japanese artist and the gorgeous products

of Chinese art. Oddly enough these have been given their proper place through the labours of the western scholars. It is a sign of the time that the best treasures of Persian art were exhibited in London, while the greatest political iconoclasts like Lenin and Stalin do not fail to have a soft corner in their hearts for a foreign classic like Shakespeare or Goethe. Indeed, to understand is to appreciate. In the artist, literary or plastic, we find one of the finest manifestations of human genius, and the religious recluse who fails to appreciate it misses one of the glories of existence.

The magic wand of knowledge has also converted the narrow bigotry of the professional missionary of Christ. There was a time when he could see nothing good in any religion outside Christianity. But more study has brought wisdom and even admiration. Dr. Miller was one of the early missionaries whose catholicity was suspect in the orthodox circles, but time has brought him his reward and there is hardly a missionary to-day who has not come to look upon Christianity as the 'crown' of religion rather than the whole of it. Knowledge again has sobered the orthodox masses. Half empty churches in Europe perhaps betoken a new faith in the spirit of Christ rather than in the mere external observances of a dogmatic creed. Real religion implies a warm heart that goes out to human misery wherever existing, and is not found in an attitude of supercilious contempt for others as 'pagan' or 'heathen.' When this spirit will permeate all religions, religious acerbity and religious pride and religious fanaticism will cease to count and in future ages come to be laughed at in that good-humoured way of Puck's 'what fools these mortals be'!

Coming down to a more mundane level, even from the economic standpoint, the world is coming to feel its greater and greater unity. The failure of a huge concern in one country has tremendous repercussions in every other civilised country. International trade and international credit have overshadowed merely national economics. Norman Angell predicted a quarter of a century ago that war under modern economic conditions is such a ruinous proposition that all war would be impossible. The greed of the powers indeed has given a lie to this prophecy and yet on its merits Norman

Angell has proved a true prophet, for if war has not become impossible, it has at least been experienced to be a disaster, which has spelled more ruin than profit. Old Caspar of Southey's *Blenheim* two centuries later would still find it hard to say what they fought each other for, but could only find consolation in the naive thought: 'but 'twas a famous victory'. There is no doubt that in our own times the nationalist state with its huge tariff walls is putting up a desperate fight against the economic facts of the twentieth century. One may even say that nationalism is engaged in a life and death struggle to maintain its existence. But the whole spirit of humanity is against it. You cannot bring into being forces which make for the oneness of humanity and yet try to circumscribe your sympathies within the bounds of a nation or an empire.

It is from this standpoint that the League of Nations has a future. To-day, dominated by a few great powers, it has to be more diplomatic than just. It has to soothe and placate, if necessary even wink at unpleasant incidents. But it is an institution which with all its weakness is yet a force which will count more and more, as the dumb millions will not meekly submit to be cannon fodder to satisfy the 'patriotism' of war lords and commercial magnates and munition interests. If the League of Nations is to fulfil its mission, it will find its most sincere ally in socialism.

Socialism is of many brands. It has been compared to a hat which has been worn on so many heads that it has lost its shape. But however much the different schools of socialism may differ from one another, they differ more in their methods than in their ideal. And that ideal is the emancipation of man from ignorance and poverty: two inherent foes of human happiness right through the ages. Buddha and Christ preached love of mankind and stray individual saints have kept aloft this lofty ideal, but till the last century poverty was taken as a divine dispensation, which nothing could do away with, so that all society was divisible into the rich and the poor. But socialism holds out a new hope, a real conquest of poverty by a new economy of production and a new economy of distribution. A critique of socialism ought to follow at this stage, but at the fag end of this lecture I must resist the temptation,

One thing in fairness I must say that I do not see in Bolshevism such an inveterate enemy of civilisation as its detractors try to make out. Its worst enemies have to admit that in the short space of ten years and in spite of its crippled resources and in spite of enemies within and without, Lenin's Bolshevism has waged a successful war against illiteracy, unparalleled in the history of even the most advanced nations whether in the past or at the present day. Its naked communism, its outspoken attack against the age-old institution of private property has raised mortal enemies against it. But communism is only an ideal which Lenin and Stalin alike have had to modify even before our eyes. And who knows how many more concessions will have to be made to human nature and to economic facts in the years to come? But *the Hammer and the Sickle* may at least put an end to the soulless orgies of the idle rich and the tyranny of the capitalist, who controls the policies of states, and the over-weening conceit of the war lords, who cheerfully spend millions on armaments and as willingly send forth millions to slay and be slain. In socialism nationalism finds its bitterest foe, and even if it fails in literally banishing poverty, it will have achieved magnificent success, if it diverts the millions spent on armaments to the other more vital and crying needs of humanity. Socialism has built up an international organisation, which has immense possibilities to override mere national considerations. The nationalist with his great belief in steel frames and what not is apt to look upon Gandhiji as a mere visionary, but what will happen when the English workman refuses to work when a war is declared against say Germany, or the German workman refuses to work when the German armies are poured into Belgium? Co-operation is the basis of life; it can be international and not merely national.

To us in India to-day Gandhiji's teaching appears of supreme importance as offering a means of escape from the over-nationalised and over-industrialised society of Europe. But when the dust of strife is laid to rest, we may be in a better position to appraise his work. Perhaps the verdict of history will be that as a religious teacher and as a man of universal sympathies he was in his element, but that with the usual intensity and the resulting narrowness of religious

teachers he was apt to overlook the complex make up of human nature and do scant justice to its artistic and cultural side. On this side he is weaker than Bolshevism, which has grasped the fact that poverty has no absolute virtue in itself and that to overcome poverty men will have to make the maximum, though a controlled, use of all the scientific discoveries, including machinery. It is man's destiny to progress, not to go back on the wide culture of humanity gleaned through centuries. If he does go back, he does so at his peril, for the man who has to struggle with poverty is bound to lose sight of the other interests of life. I do not deny that there is something great in the self-imposed poverty of Gandhiji himself, but it is not a rule which can be universalised, though the world needs off and on men like him as a perpetual reminder that money is not, and can never be, the highest aim of human existence, and such men only India can produce. That is her glory, her mission.

I do not know if I have succeeded in carrying you with me in this rapid survey of the past and the glimpse of the future. As an idealist I have a faith in the reign of reason. Reason has its own logic, its own plan. It is not a mechanical device, which like a gramophone makes men and women talk or like a cinema makes them act. Reason in its essence is free. This is what philosophers have been teaching for centuries. It was science that again and again tried to back up determinism in the interests of what it was pleased to call exact knowledge. But even science has ceased to be determinist. Einstein has enthroned relativity at the heart of things and Sir James Jeans is constrained to admit: 'To my mind the laws which nature obeys are less suggestive of those which a machine obeys in its motion than of those which a musician obeys in writing a fugue or a poet in composing a sonnet'.<sup>1</sup> If the same eminent scientist can be taken as a thoroughpaced representative of the scientists generally, it is interesting to find him writing: 'Unless this whole branch of science is wrong, nature permits herself quite literally only two alternatives: progress and death; the only standing still she permits is in the stillness of the grave'.<sup>2</sup> This is exactly the conclusion

<sup>1</sup> Sir James Jeans: *The Mysterious Universe*, p. 136.

<sup>2</sup> *Ibid.*, p. 144.

which I have had in mind while dealing with the more personal and therefore the more difficult world of human history. Wherever they are born, men must learn from one another, or else go under. The highest goods of life: beauty in art, truth in thought, goodness in life are human, not national possessions. They know no East and West. Their home is in the limitless depths of human heart.

[NOTE.—These lectures were delivered on the 26th and 27th February 1932.]



# THE NATTUKOTTAI CHETTIYARS<sup>1</sup>

A COMMUNITY OF BANKERS

BY

P. J. THOMAS

*University Professor of Economics*

The Nattukottai Chettiyar is the indigenous banker *par excellence* of Southern India. In some respects, the Chettiyars are the most remarkable banking community in the whole of India. Unlike the Marwaris and Jains, their business is almost exclusively banking; and they do not combine with it trading and other occupations. The methods of their banking business are also of a higher order than those of other indigenous banking communities in India. A reorganisation of the banking system of India is now overdue, and in any scheme of reorganisation, the central problem will be the linking up of the indigenous banking system with the organized money market of the larger cities. In view of this, it might be profitable to make a survey of the banking organisation of so remarkable a class of bankers as the Nattukottai Chettiyars.

The home of the Nattukottai bankers is Chettinad which falls within the District of Ramnad and the Indian State of Pudukottai. From there, they first expanded their business all over Madras Presidency and the Indian States adjoining thereto. Subsequently, attracted by the increasing opportunities for profit opened out by the growth of plantations in Ceylon, Malaya, Burma, and Straits Settlement, the Chettiyars went over to those countries, and to-day they carry on an extensive banking business all over Southern Asia, including Siam, French Indo-China, Sumatra, Java, and neighbouring islands. They have penetrated into the innermost fastnesses of those countries; they finance the rice trade of Burma and have also important interests in Ceylon rubber

<sup>1</sup> From the writer's forthcoming work on 'Rural Finance in India.'

and tea and Malayan rubber.<sup>1</sup> In fact their banking business in India is to-day only a small fraction of their total business.

The Chettiars are also called Nagarathars, because they belong to certain nagarams (or townships), 9 in number. At the head of each of those nagarams there is a temple, which is maintained by the common funds of the Nagarathars. The married couple (pulli) forms the social unit of the community, and each such unit has to contribute pullivari and asthi-vari to the temple. They are devotees of Siva and are generally vegetarians. They have built fine temples and have established several choultries and poor houses, and have always shown readiness to contribute liberally to public charities. From ancient times, a percentage of the profits of all Chettiar firms has been set apart for charity (magimai).

Like the Marwaris and Jains, they are sparing in their expenditure on personal comforts and all their daily avocations are characterised by extreme simplicity and frugality. Yet they have been lavish in the making of ornaments and in the building of houses. The barren region of Chettinad is studded with numerous palatial houses which cost on an average Rs. 100,000 each to build; in Devakotta alone, there are many such houses. The total investment in houses and jewels is estimated at about Rs. 14 crores. When Chettiars go away on business, their families generally stay in Chettinad. But they always come home to perform their ceremonies, and marriages are celebrated almost invariably in the ancestral homes.

Most of the indigenous banking communities of India do not carry on money-lending as their sole business. They may also be general merchants, commercial agents, dealing in bullion, cotton, grain, cloth and other produce, brokers or jewellers.<sup>2</sup> Often money-lending is only auxiliary to these occupations. Thus in Bombay, U. P. and C. P. the bankers trade in grain and cotton and carry on speculation. They purchase cotton and grain at harvest and store them against a rise of price.

<sup>1</sup> Their connection with Ceylon and Malaya dates back to a time earlier than the boom in tea and rubber; but they first went there chiefly for trade and only subsequently took to banking. *Madras Banking Committee's Proceedings*, Vol. III, p. 11/0.

<sup>2</sup> Jain, *Indigenous Banking*, pp. 43-45.

The Marwaris of Bombay operate on the cotton exchange, and to them money-lending is only a side-line. Elsewhere they are large landowners, or own mills and factories. In Bengal,<sup>1</sup> they finance a considerable proportion of the distributive trade. In fact most of the indigenous bankers are but businessmen using their capital to earn a profit and they undertake any kind of business which in their view will bring profit. This has always been the case in India. Money-lending was auxiliary to trade, and with the increasing vogue of joint-stock banking in India, this tendency has grown more conspicuous than before.

The Chettiar and the Multani are the principal exceptions. Even among these two classes, there may be several pursuing other trades as well, but nearly always even those traders are allied to banking. For example, the Multani buys and sells gold and carries on internal arbitrage operations and some of them also buy and sell commodities for their clients.<sup>2</sup> Arbitrage transactions and dealing in bullion are auxiliary to banking, and profitable, if safely pursued. The Chettiar sells gold, but the sales are mostly unredeemed pledges. There are also some who buy and sell gold as a regular business.<sup>3</sup> Speculation is usually associated with indigenous bankers, and in the case of several classes of them, it is a fact that they have been speculating in commodities as well as in bullion. Such speculation ruined several wealthy bankers in the past, and now there is much less of it than before. The Multanis seldom buy and sell commodities for themselves, and as for Nattukottai Chettiars, they avoid speculative dealings, and this partly explains the stability of their business even in bad times.<sup>4</sup>

It is true that several Nattukottai Chettiars have become proprietors of rubber and tea gardens, rice mills, saw mills and other factories, not only in India but in Ceylon, Burma and Malaya, but it must be admitted that this was not due to deliberate design but was thrown upon them by the failure

<sup>1</sup> *Bengal Banking Report*, p. 185.

<sup>2</sup> *Indian Finance*, Jan. 18, 1930, p. 72.

<sup>3</sup> *Burma Banking Report*, p. 197.

<sup>4</sup> *Madras Banking Committee*, III, p. 1175. This was in the matter of rice imports to Ceylon, and this gave a windfall to the Chettiars of Tirupattur and around.

of their debtors to pay up. Thus in Ceylon, Chettiars have become owners of several rubber and tea estates and oil mills; and in Burma, they have now much land in their possession. This apparently was not due to the Chettiars' desire to become landowners, and in several cases the land was sold away where an opportunity came: and although a certain number of Chettiars have taken to cultivation of land in Burma by hired labour, it is not possible that the great majority of them will give up their hereditary profession.<sup>1</sup>

### ORGANISATION OF THEIR BANKING BUSINESS

The business of most of the banking communities of India are organised on the joint family basis. Members of the family work in common as farmers and the profits go to the common fund of the joint family. Not only do they live in common, but they generally keep a common mess. When such a firm takes outside partners, they are taken only as working partners with a share in the capital, and such partners are paid a fixed salary and a bonus according to the profits of the business. Indeed as families get larger and larger division is effected, not only of the capital but also of the clientele.

The above, however, is not true of the Nattukottai Chettiars. With them, every married person of means has his own business or becomes partner in another business. When a Chettiar marries, he becomes independent. He may live in the same house as his parents, but he has his separate mess, and every year a budget allotment is made by his parents for his maintenance. This custom has made the Chettiar more independent and self-reliant than his compeers.

In spite of such pronounced individualism and self-help, the Nattukottai Chettiars have developed among themselves a strong tradition of mutual help and sodality. In all the principal towns, where they carry on business, they congregate in one common street and often live and work in the same premises although their businesses may be all separate. Wherever they go they maintain a common temple, and have

many, economic, social and other interests in common. Many of their firms are partnerships, and such partnerships may last many generations. The same person may have shares in several partnership concerns and thus there is strong interlock of interests between them.<sup>1</sup> Even when such interlocking does not exist, the Chettians are prepared to guarantee each other, and in times of need, they are ready to give generous aid to distressed firms. They guarantee each other when borrowing from the joint-stock banks and such solidarity enhances their credit in the market. This system of mutual guarantee has also its evils, for when one firm fails many others may also be involved in the failure and a general crisis may result.

Such sodality is naturally stronger among the Chetties in distant centres. 'Existing as a small alien group with frequent blood relationship and with common economic interests, descent, language, worship and all caste associations, but divided in all these points from the population around them was sure to generate a feeling of sodality, especially as there was necessarily mutual dependence in some matters, such as the occasional need of liquid resources.'<sup>2</sup> In Rangoon, Singapore, Colombo and other outside centres, they all congregate in the same street and even have their offices in the same building. Thus all the Chetty firms at Rangoon are in Moghul Street and in close vicinity of their temple, where they all meet in the morning daily for exchanging news and for fixing up interest and terms of business.

There is also a strong communal system of arbitration obtaining among the Chettians. Attached to every temple (kovil) is a temple council (Panchayat), which is composed of the elders among them and adjudicate on all matters relating to marriage, monetary transactions, family disputes, etc. The manager of the Kovil arranges for meetings and records evidence; and the award is given orally and not usually in writing. If the parties do not abide by the decision, they may be ostracised, and their marriages may not

<sup>1</sup> The firms are generally called by the initials of the different combining partners. Thus P.M.R.M. means the partnership of Palaniappen, Murugappen and Ramanathan. The name of the agent is often given after the initials.

<sup>2</sup> *Burma Banking Report*, p. 194.

be celebrated under the auspices of the Kovil.<sup>1</sup> Similarly when a man fails, a Panchayat is appointed to take up the matter and they generally settle affairs in such a way that intervention by the Court is avoided and the unsuccessful man is given a chance to start life again as employee of some other firm.

Similar institutions exist among other indigenous bankers also. However, of late such institutions are getting weaker owing to the onrush of individualism.<sup>2</sup>

Most of the indigenous banking firms are family businesses or partnerships. The Multanis are organized on a joint family basis and therefore the different members of the family manage the business in different parts of the country. The leading partners generally live at Shikarpur or Bombay, and the junior partners work as agents abroad. Besides members of the family, others are taken as working partners.

The Chettiyars form partnerships, especially when establishing firms abroad. Thus, excepting the Bank of Chettinad (which is a private limited company registered under the Indian Companies Act), the Chetty firms in Burma are partnerships organised in India and represented there by agents sent from India. The money is sent from India, and the accountants and clerks are also Indians. Both in India and abroad Chettiars maintain firms only in the larger towns and trade centres. Sometimes small agencies called *Ulkade* are opened in out-stations and railway stations (*railkade*) and these are controlled by the agents in the larger centres.

The agent is the central figure in the Nattukottai banking business, whether within the country or abroad. He is often a relative of the partners and is engaged on a three years' contract during which his board and lodging is provided by the principal. Part of his salary ( $1/2$  to  $2/3$ ) will be paid a month after appointment and the other part after the expiry of half the period. The amount of the salary will depend upon the ability and position of the agent, the volume of transactions and upon the distance of the agency from the head office. In Burma, the usual rates range from 6,000 to 15,000 rupees for the triennium. Besides pay, the agent is

<sup>1</sup> Thurston, *Castes and Tribes in S. India*, Vol. V, p. 263.

<sup>2</sup> Jain, *Indigenous Banking*, p. 40.

also given on return a bonus which may vary from 6 to 10 per cent of the net profit earned during his term. Six months before the expiry of an agent's term, another person is sent to the spot, to get acquainted with the details of the business. The new agent classifies all the outstanding loans as good or bad and sends a report to the proprietors. If the two agents disagree reference is made to the proprietors. The outgoing agent will then return to Chettinad and settle up with his employers, after which he will go home and take rest for three years. He may then offer himself for appointment to his old employers, or set up a business himself. If the agent is an able man, his employers may make him a partner in the business.

An agent has usually an establishment of 5 or 6 persons, of whom the principal are the Assistant (*aūthal*), the Cashier and the Accountant; others are usually young persons learning the business and generally help the principal employees by going on errand, etc. All these persons are selected with great care, and careful watch is kept on them. Severe punishment will be meted out in case of dishonesty, and, to a Chettiar, caste ostracism is a worse punishment than conviction by court.

An apprentice is usually paid no salary for the first triennium, he gets only his board and lodging and pocket money. On return home, he may, like the agent, receive a bonus. After a year's rest, he is again sent out on a fixed salary, anything between Rs. 1,000 and Rs. 2,000. The salary is increased at every succeeding periods of engagement. The apprentice gradually becomes accountant or cashier, and after 7 or 8 years may become an assistant agent and sent to an outstation. After about 15 years' experience, he becomes a full-fledged agent. The sons of large bankers have also to undergo nearly the same training, although the period may be shortened. The Chettiar is a firm believer in the maxim that he who wants to command must first learn to obey. Therefore the sons of wealthy families are also apprenticed.

The working capital employed by the Chetty community has been estimated by the Burma Banking Committee at about Rs. 120 crores, of which 75 crores are in use in

Burma, 25 in F.M.S. and the Straits, 14 in Ceylon, 5 in Cochin China<sup>1</sup> and only one crore in the Madras Presidency. According to the Madras Banking Committee's estimate, the amount of working capital in Madras is Rs. 6½ crores, and its volume of business is as much as 11 crores.<sup>2</sup> Another estimate was made by Mr. Saverinatha Pillai, Assistant Commissioner of Income-tax, in a memorandum which he placed before the Committee. According to him the volume of business in the Presidency is only 3 crores,<sup>3</sup> apparently excluding the Bankers of the Pudukottai State from his computation.

### SOURCES OF THE CHETTY CAPITAL

A banker is sometimes described as one who makes profit with other people's money and his own brains. Indigenous bankers in India do indeed make profit, but it is not chiefly with other people's money. The system of receiving deposits obtained from time immemorial, but often it was done to oblige the depositor more than to benefit the banker. However, with the increased opportunity for investment, a demand for deposit arose among bankers, and moneyed men deposited large sums with them. But there was always a reluctance on the part of Chettiars to receive current account deposits, and, as the joint stock banks showed no such reluctance, the bulk of Indian deposits went to them. At present the indigenous bankers deal with their own money or money borrowed from joint stock banks. The Nattukottai Chettiars still receive deposits, both on current account (*kata kanakku*) and on fixed deposit (*thavanai kanakku*). But such deposits form only a small part of their working capital. According to one estimate, about two-thirds of the Chettiars' working capital is supplied by the proprietors themselves, and of the rest more than one-half comes as deposit from other Chettiyars. Thus only one-seventh of the capital comes from non-Chettiyars. It used to be rather more, but owing to the failures of Chetty

<sup>1</sup> *Burma Banking Report*, pp. 210-11.

<sup>2</sup> *Madras Banking Report*, p. 186.

<sup>3</sup> *Madras Banking Evidence*, Vol. III, p. 1174.

firms in recent times deposits from the public are not at present so abundant as they used to be.<sup>1</sup> The Chetty capital thus deposited is chiefly the money of married women and widows. Chetty women receive fairly large dowries at marriage, and these moneys are generally placed on deposit with a number of firms. Chettiars will not generally place all their money with one firm, but will distribute it among different firms for the sake of safety. The non-Chettiar capital that comes into Chetty firms is either deposited by the public or borrowed from joint stock banks.

The kinds of deposit best known to Chettiars are 'Tavanai' deposits and 'Veyan-vatti' deposits, which are both fixed deposits. The Tavanai deposit is for a period of 2 months, and its interest is fixed monthly, on the 16th day of the Tamil month. The depositors are mostly Chettiars, and only these receive the full tavanai rate fixed, while the others have to be satisfied with a percentage or two less. The veyan-vatti deposits are fixed deposits at fluctuating rates of interest described by its excess in annas per Rs. 100 per mensem above the current rate, and the usual period is three, six or twelve months. Deposit receipts or Promissory notes are given to the depositor; but it is understood that demand will not be made till the prescribed period is over. Deposits on current account are less popular owing to the necessity for keeping liquid resources that it involves. The rates on current account deposits are fixed monthly, on the 16th of every Tamil month, and they apply not only to ordinary current account deposits by Chettiars and others, but also to the rates paid by agents to the principals for working capital supplied, and veyan-vatti rates are calculated on the basis of the current rate as fixed monthly.

#### THE CLIENTELE OF THE CHETTIARS

Chettiars lend to agriculturists as well as traders, but, in the case of S. India, it cannot be said that they finance agriculture or trade to any great extent. Agriculture in S. India is financed chiefly by the village money-lender, who may be

<sup>1</sup> *Burma Banking Report*, p. 213. *Madras Banking Evidence*, Vol. III, p. 1176.

a shopkeeper or a landowner. Some Chettiars do lend to these people and thus they may be said to indirectly finance agriculture. In Burma, on the other hand, Chettiars are first and foremost financiers of agriculture. In Lower Burma, their dealings are chiefly with landlords and agriculturists, but in Upper Burma traders are their principal clients. In fact, the Chettiars lend to all those who have personal credit, whether they be agriculturists, industrialists or traders. They lend for both short-term and long-term purposes, and the purpose of the loan is seldom a consideration for them. Most of the long-term loans given by them are for celebrating marriages or other social ceremonies or for other unproductive purposes. But the amounts given for such purposes will depend upon the security offered. Generally money used to be lent on promissory notes, whether it be for long-term or short-term purposes. But now on account of depression security is demanded. It may be land, houses, gold and jewellery, or Government securities. For long-term loans, land and houses are the usual security demanded; gold and jewellery are always acceptable as securities as they are readily saleable. The rates of interest charged by Chettiars vary with the parties, the time of the year, the purpose of loans, the security offered, and the amount of the loan. Except on first class town mortgages, interest is not usually less than 12 per cent per annum.

The Chettiars have no fixed hours of work and are accessible at all times. Their principal holidays are Thai-puzam, Chitra-Pournami and Panguni Uthiram. Accounts are kept in Tamil, on a system of single entry, but two principal books are kept: the 'kūrippu' (journal of daily transactions), and 'peredu' (ledger, each page being allotted to one client). The ledger account for the borrower has three cash columns for interest received, credit and debit respectively, and the serial number of the documents also are entered therein. It is also customary to keep 'chittai' books (rough notes), and 'bake' (balance) books. Every month balance sheets are prepared by the agents and, with copies of chittai, are sent to the principal.

The Chettiar's system of accounting is elaborate and

accurate. Without the use of interest tables and calculating machines, they can easily calculate interest to the lowest *immi* ( $1/3200$ th).<sup>1</sup> The Chetty boys are trained at an early age to such accurate calculations and they get a wonderful mastery of arithmetic in the course of their office work.

#### THE CHETTIARS AND JOINT-STOCK BANKS

The Chettiars draw a portion of their working capital from the joint-stock banks, especially the Imperial Bank of India. These banks make advances to Chettiars in the form of bills, loans, cash-credits and overdrafts. Loans are made on promissory notes supported by two signatures. Usually two Chettiars combine to borrow funds from the bank, one of them becomes the borrower and the other the guarantor and the loan amount is divided between the two by private agreement. Overdrafts are secured by Government paper; and cash credits are raised by promissory notes strengthened by title deeds of house property as collateral security. In Madras, advances by banks are mostly made by way of loan, and only a small portion by overdraft. The Imperial Bank in Madras charges interest at 1 per cent above the Bank rate, but in Rangoon the charge is usually  $1\frac{1}{2}$  to 2 per cent above the bank rate. The Indian Bank charges at the rate of  $1\frac{1}{2}$  or 2 per cent above the bank rate in busy season, and  $\frac{1}{2}$  to 1 per cent above the bank rate in the slack season. Before the trade depression, the Chettiars had borrowed large sums from the joint-stock banks, but latterly such loans have dwindled and are not more than Rs. 60 to 70 lakhs. Sir Annamalai Chettiyar, Raja of Chettinad, was for many years a Director, and is now a Governor, of the Imperial Bank of India.

In this connection reference must be made to the only exclusively Chettiyar bank of the modern type that has lately come into existence, the Bank of Chettinad. It is a private limited company and owes its origin to Raja Sir Annamalai Chettiyar. It has a subscribed capital of Re. 1 crore and has already opened 40 branches, which are spread all over India, Burma and Ceylon. It receives deposits, but latterly owing

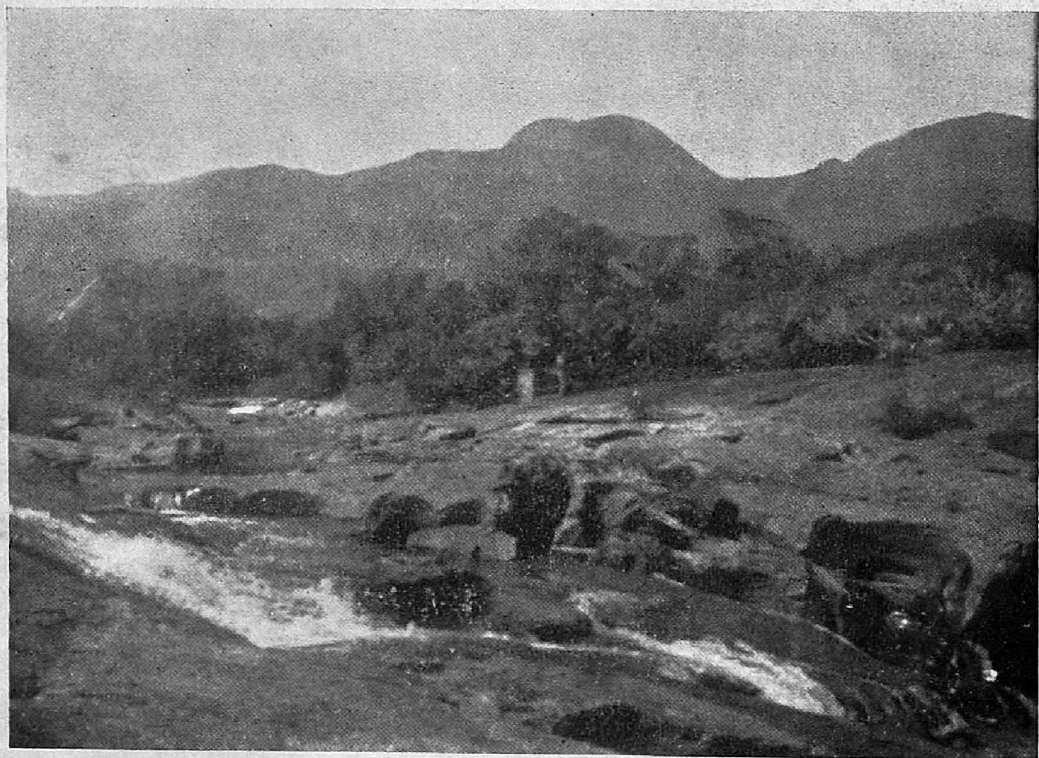
<sup>1</sup> The fractions in use in S. India are ara ( $\frac{1}{2}$ ), kal ( $\frac{1}{4}$ ), arakkal ( $1/8$ ), makani ( $1/16$ ), ma ( $1/10$ ), muntiri ( $1/320$ ), immi ( $1/3200$ ).

to the trade slump, not much of deposits is received. It does regular commercial banking business, and an attempt is made to adapt the indigenous banking system of the Chettiyars to the modern system of banking introduced from the West.

### CONCLUSION

This paper deals solely with the banking business of the Nattukottai Chettiyars and it is not proposed in this connection to dwell on their charitable bequests, their munificence to learning, and the increasing part played by them in the public affairs of the country.

I shall, however, offer one hint in regard to the future of the Chettiyars' business. Till lately, moneylending, especially in towns, had been profitable; but it is doubtful if private moneylending will in future be so profitable as it had been in the past. The field that calls for enterprise in the future is industrial investment, and it would be desirable if the Chettiyars will direct their attention to large-scale industry. This is desirable, not only in their own interests but in the interests of the country. An efficient system of large-scale industry is the prime need of India to-day, and who are more competent to organize such industry than these shrewdest of Indian businessmen?



A VIEW OF THE PAMBANAR, ANJANAD

# THE VELLALAS OF ANJANAD

BY

L. A. KRISHNA IYER, M.A.

## CHAPTER I

### INTRODUCTION

The Vellālas of Travancore are found as isolated units in Anjanad; Thodupuzha, Rani, Chirakadavu, Shencotta and Nanjanad. There is a general consensus of opinion that they came to Travancore either from Madura or Tinnevely. It is proposed to treat here of the Vellālas of Anjanad who are found in the hamlets of Marayur Kilandur, Kandalur and Kottathatti.

### TRADITIONS OF ORIGIN

The Vellālas of Anjanad trace their migration to Travancore to the story of Kovalan and Kannaka who have been immortalised in the Epic of the Anklet. Briefly told, the story runs as follows: In the city of Pukar alias Kaveripoompattanam lived two merchant princes, Mahasattuvan and Manayakkan. It was arranged between them that Kovalan, the son of the former, should marry Kannaka, the daughter of the latter. The marriage was celebrated with great pomp and ceremony. Some time elapsed, when Kovalan felt a passion for Mādhavi, deserted his home and loving wife, and spent some years with Mādhavi. He lost all his wealth. Wiser counsels prevailed in the end. He went back to his lovely wife and made amends for his past conduct. He proposed that they should go to Madura, the capital of the Pandiyan chief.

The idea behind the move was that Kovalan was to sell one of Kannaka's anklets and retrieve their lost fortune by trade with the proceeds. Kannaka agreed, and they went to Madura. Kovalan left his wife in the cottage of a shepherdess, and walked about the streets of Madura to dispose of the anklet. He met a goldsmith, Vannithattan, who was suspected of complicity in the theft of the anklet from the palace.

Vannithattan was elated with joy on seeing the anklet, for it was a capital opportunity for him to clear himself of the

suspicion against him. He straight went to the palace and informed the king that he had traced the thief who stole the anklet from the palace. The king ordered Kovalan to be beheaded without making any enquiry, and it was done promptly.

On leaving the cottage, Kovalan left a sandal mark on a lime and informed his wife that, if she saw the mark faded, she might infer that some harm had befallen him. Kannaka found it faded, and she forthwith went after her husband. She soon came to know of his death, flung her innate modesty to the winds, went to the palace, and rang the bell of justice.

This alarm aroused the suspicion of the hall-porter that something was amiss. The unusual figure of a young injured woman was reported to the king. Kannaka went before the king and proved to the hilt that the anklet was hers. This statement was corroborated by the queen.

Kannaka then invoked a curse that Madura be consumed with fire. A large number of Vellālas and Kollans are said to have then fled to the Travancore hills via Korangani and the hamlet of Kottathatti marks the signpost of their past migrations. At the instance of the Vellālas, the Kollans were all extirpated, and the Vellālas settled down in all parts of the Anjanad valley.

When the Vellālas came to the hills, they found that tract already occupied by the Muduvans, whom they even now regard with reverence, and call "താഴ്ന്നവർ" or ancestors. The turmoil in Madura took Kannan Devan to the hills. He killed the chiefs of the Vellālas, and became the chieftain of 1,000 homes of Vellālas, levying ransom from them. The Vellālas could not for long take this insult lying down and they allied themselves with a chieftain of Chittur (N. Arcot), who came over to the Poonyat chief, and requested him to take over the management of the Anjanad valley. The latter assented and appointed a Mannati, Mantri and Periathanam for each hamlet. The Raja presented a silk and a wristlet to Mannati, a silk and a ring to Mantri, and a silk to Periathanam. The Mannati is responsible for the well-being of the hamlet and for the payment of kist to the chief. The Mannati of Kottathatti



A VELLĀLA MALE GROUP



A VELLĀLA FEMALE GROUP

The Epic of the Anklet is related in *Chilappathikaram*, which is traced to the first century of the Christian era. It is probable that the Vellālas came to Anjanad in the first century A.D.<sup>1</sup>

#### EXOGRAMY

There are two exogamous divisions in each hamlet, the Melekuttakar and Kizhekuttakar. The Melekuttakar belong to Kangeyakulam or clan, while the Kizhekuttakar belong to Thondamandalam clan. A man of the former clan cannot marry a woman of the same clan, but can marry one from Thondamandalam clan. Marriage is between cross-cousins, but a man prefers to marry the daughter of his father's sister as it is considered superior to marrying the daughter of his maternal uncle.

If a woman refuses to allow her son to marry her brother's daughter, a panchayat meets, and decides that she should hand over all her ornaments and dowry to her brother. It symbolises a severance of all connection. If she refuses to return the dowry, the panchayat recovers Rs. 7-8-0 from her husband. It is intended to indicate a severance of all worldly connection between them. If, by chance, they return to friendly relations, the amount is not returned.

#### MARRIAGE

Marriage takes place both before and after a girl attains puberty. Generally, the age of marriage for boys is 18, and 16 for girls. In the case of pre-puberty marriage, a girl is married at the age of 8. Marriage is celebrated in the girl's house, and lasts for 3 days. When a boy approaches the marriageable age, his parents moot the marriage question to the girl's father. In case of agreement, the match is struck. Marriage is generally celebrated in the month of Thye (January to February) as it is the season of plenty with them.

The boy's parents present the girl with a coloured cloth and ornaments to the value of about Rs. 10. On the marriage day, the bridegroom and party go to the bride's house. Prayers are first offered to god Ganapathi. The bridegroom and bride sit in the marriage booth. The bridegroom ties

<sup>1</sup> Chelvakesavaya Mudaliar, *Kannakacharitam*, pp. 122-124.

the marriage badge round her neck. An elderly man then asks them to exchange garlands. This is done. They then sit side by side, when the bride's father joins the small finger of her right hand with that of the left hand of the bridegroom. Then he says in the presence of all "ആകാശമറിയ, ഭൂമിഅറിയ, ചന്ദ്രസൂര്യനറിയ, ശ്രുതിമുച്ഛത്തിമുദേക്കാട്ഭവകൾ അറിയ, 48,000 പ്രജികൾ അറിയ, ഇന്ത സഭയോർക്കൾ അറിയ, എൻ മകളെയ് ഇന്ത ആൺമകനേക്കു തന്തിരുക്കേൻ." This means, "I give my daughter to this man with the cognisance of the sky, the earth, the sun and moon, 33 crores of celestial beings, 48,000 sages and this audience." Before the above words are uttered, the couple are covered with a cloth presented by the bridegroom's father. The bride's father then takes a drop of milk and leaves it in the middle of the clasped fingers, saying "milk", and then separates their hands. This means that, as milk is pure, the married couple should lead a clean pure life.

The bride then wears the cloth presented by the bridegroom's father. The married couple are then taken in. All are treated to a feast. The married couple dine separately. The bridegroom then goes to his home with his wife and party. The bride's party are there treated to a feast, and they return home. The garlands of the couple are kept in an earthen vessel.

On the second day, 150 padis of paddy are given to the bride's father and 60 padis are left at Perumpara (a common meeting place). The bridegroom's bestman removes all the husk and sends 14 padis to the bride's house. It is intended for a feast to be given for the bridegroom and family after a month. 14 padis are given to the priest to propitiate seven village gods and goddesses, Ganapathi, Bhadrakālī, Vishṇu, Manikuliki Ammal, Ptāri Amman, Arunāchi Amman, and Thenkāsi Amman. The village worthies are given a padi each, and the remaining paddy goes to the barber and others.

The married couple go to the stream to bathe with bestman and then throw the garland into the stream. The bride carries some water in a vessel. They return to the village and worship god Ganapathi, and go home.

Meanwhile a basket of rice and curry is taken from the bride's hut. The husband washes his hands and feet with water brought from the stream. His wife then serves food

for him, who leaves some remnant. This is partaken by his wife. Meanwhile the villagers are treated to a feast and given pansupari. The married couple then come forward and presents of money from 4 annas to one rupee are made to them. All then depart. The married couple are then taken to the bride's hut to the accompaniment of tom-tom. The bride's father presents his son-in-law with a pair of cloths and turban. To these is added the luxury of a coat and shirt. All are treated to a feast. The elders then tender some advice to the couple, who then return to the husband's house. On the third day, those who did not take part in the festivities for the first two days are fed.

An auspicious date is fixed for nuptials after two months. During this period she remains in her husband's home. Since it is small, the parents and other members make room for them by going to other huts leaving the couple behind to enjoy themselves.

#### POLYGAMY

A man may marry more than one woman either owing to the sterility of his first wife or to ensure greater gratification for himself. Both wives may remain in the same hut or separately. A man may marry the sister of his first wife. The same ceremonies are gone through. A widow may be married, but there is no ceremony. The man presents a cloth to her, one to her mother and Rs. 2-8-0 to her father. There is tāli-tying, but no joining of hands. All the visitors are treated to a feast.

#### POLYANDRY

A certain amount of reticence is observed, but fraternal polyandry seems to be prevalent.

#### LEVIRITE

A man may marry the wife of his deceased elder brother, when he becomes the guardian of her children by him.

#### SORORATE

A man may marry the sister of his deceased wife as his second wife. Thus the custom of sororate is practised in conjunction with the levirate among them.

## SEXUAL LICENSE

Morality is rated to be very low among the Vellālas. Great freedom prevails within the limits of the caste. The occasion for illicit union arises every day, when women go out every morning to the jungle for collection of fuel after breakfast. They meet each other in their customary places, mate, and depart.

## ADULTERY

If a woman commits adultery, her husband gets relief, only if he catches the culprit red-handed and takes him before the village panchayat. If the offence is proved, the adulterer is fined up to five rupees and is let off with a warning not to commit such offence in future. An oath is also taken from him to that effect. If the offence is repeated the woman is ordered to live with the adulterer, who will have to pay back to her husband the expenses incurred for marriage.

## DIVORCE

A man divorces his wife on grounds of disobedience, indifference or immorality. The woman in such cases prefers a complaint before the panchayat, that she has been wrongly divorced. If the woman is innocent, the husband is asked to give her 4 shalakas of paddy or an acre of land, and a pair of bullocks. If she is declared guilty, no grant is made for her maintenance and she lives with her parents.

## CHAPTER II

## PUBERTY CUSTOMS

When a girl attains puberty, she is lodged in the Muttu-Veedu (seclusion-shed), where other girls keep company. Pollution lasts for 15 days. From the 5th to the 10th day, relations present her with sweets. On the 16th day, she bathes and goes home. During pollution, she should not see any males.

## MENSTRUATION

A woman in menses remains in the seclusion-shed for 3 days. During this period, she is not allowed to go to paddy fields

at the time of harvest, as it is feared that she would blight the crop and Goddess Lakshmi would go away. On the 4th day, she bathes and goes home.

### PREGNANCY AND CHILD-BIRTH

No ceremony is attached to pregnancy. Women do hard work even at such times and there are instances of child-birth in the field. When a woman is about to become a mother, child-birth takes place in the verandah, where men should not go. Relations assist in delivery. Pollution lasts for 15 days for first delivery and 3 days for subsequent deliveries. On the 16th day she bathes and enters the home with baby.

### NAMING CEREMONY

Naming is done on the 16th day when the Mannati and two others are present. A goat is killed for the occasion to provide for a feast. The uncle brings a cloth 6 cubits long, a bottle of castor oil, and a small iron spoon to heat the oil. The cloth is used for a hammock. The uncle, the girl's mother, and brother-in-law sit together. The grandmother has the baby on her lap. The husband makes a mark of holy ash on the forehead of the baby and his wife. The uncle then repeats the same process followed by other old women. Each one gives a name. If the baby sleeps well when a name is given, it is called by that name. If it cries at that moment, that name is not given. In case a woman sees a Sanyasi putting a mark on her forehead in her dream, and she becomes a mother later, she says that a name after him should be given and the baby is called Palaniappan. If a Brahman is seen in dream, the baby is called Lingappan. All are then treated to a feast. Generally, if a son is born, he is named after his paternal grandfather. In the case of a female, she is named after her maternal grandmother. Any name is given for subsequent children.

Lingappan, Palaniappan, Perumal, Muthu, Nanjappan, Velāndi, Krishnan, Gundappa, Kāliappan, Santhappan are some of the names given to male children. Kāmachi, Mēēnachi, Kāli, Velakka, Thimmakka, Odayakka, Nāchal, and Perumakka are some of the names given to females. Pet names like Ponnamma, Thangamma are also given.

## TABOO ON NAMES

A man does not talk with his wife and aunt. He avoids his aunt on the way. A man does not talk with his mother-in-law.

## INHERITANCE

When a man dies, his son inherits his property. If he has no son, his property goes to his younger brothers, who divide it equally among themselves. If there is no younger brother living, the property devolves on his sons. A woman does not inherit any property. She gets such dowry as is given at the time of her father's demise. Property consists of land, live-stock, and ornaments.

In regard to chieftainship, the title goes to the son. In the absence of a son, the title devolves on his brother. It does not go to the nephew.

## FUNERAL CEREMONIES

When a man breathes his last, the Mannati, the Mantri, the Periathanam, and the villagers are invited. A small quantity of milk is poured into a brass vessel which is kept in a basket. Some grains of rice are thrown into it. The eldest son dips a gold fanam, and puts it into the mouth of the deceased, saying "പാൽ പണം പോടറേൻ, വായ് പൊളാ, അപ്പ, which means "open your mouth, father. I am putting a gold fanam dipped in milk." The Mannati, the Mantri, the Periathanam, and all relations pour a drop of milk into the mouth of the deceased. The son then wraps the corpse with a new sheet of cloth. All the relations also throw a sheet of cloth over the deceased. Saffron is smeared over the eyes and mouth, which are then bandaged with a cloth.

\* At this stage, women raise loud lamentations. The corpse is removed outside the house and placed on a cot. The barber shaves the face of the deceased. Women bring water and wash the corpse. They then smear it with sandal. A small flower garland is tied round the head. The eyes are smeared with collyrium. All the cloths are brought by the youngest son in the case of the father, while the eldest son does so in the case of the mother. This practice is governed by the dictum "അയിക്കു തല മകൻ, അപ്പനക്കു കടമകൻ" The son, nephew,

and grandson carry the cloth on their head in a basket with a handful of rice in it. They go round the corpse thrice and cover it with the cloths. The widow is taken inside and her head is covered with a cloth. She then carries a pot of water on her head and is followed by three or four women. One widow breaks the tāli, and places it in the mouth of the corpse. The tāli is then put into the vessel of milk. The women throw some rice into the mouth of the corpse. The wife of the deceased carries a pot of water over her head and a burning faggot in her hand. The faggot is placed near the head. She goes round the corpse thrice, and falls down, when the pot breaks. She is then removed and all the women sit down. The corpse is then placed on a bier. All sprinkle water over it and pray that the soul may go to Heaven. The corpse is then carried to the burial ground which is about a furlong from the village.

Meanwhile, the grave is dug and kept ready by the Malappulayas. It is breast deep and is dug north to south. The corpse is placed on the ground. Those who carried it have to shave their heads. They again go round the corpse carrying the basket of cloths thrice, and then keep it down. All then take a pinch of rice with crossed hands. It is placed on the cloth and tied. The brother-in-law takes a ball of butter and places it over the region of the heart in the body. The bundle of rice is placed over the breast. The son carries a pot of water on his head and a burning faggot in his hand. He goes round the corpse thrice. The pot is thrown away and the burning faggot is placed near the head. The Malappulaya places it near the feet. He does so out of his reverence for the deceased. All weep. All the cloths are removed. A cubit of cloth is then torn into two and the pieces are used to cover the head and feet. The corpse is then lowered into the grave and covered with earth. The Malappulayas cover it with thorns and a flat stone is placed over it, so that wild animals may not do any damage to the corpse.

Pollution lasts for thirty days. On the 5th day, all the chief mourners are treated to a feast. On the 15th day, a small feast is given to the mourners and oil for all those who go there to bathe. On the 31st day, all are given oil for bathing. A grand feast is given to all in honour of the dead. In

case the widow has no child, she is sent away to her home with all ornaments and dowry she had received from her father at the time of marriage. She is also given thirty valluins of paddy. The brother of the deceased enters the house and becomes the claimant of all properties. He also gives her Rs. 7-8, the basket with vessel of milk and tāli, sickle, and paddy. All these are taken to her father's house by ten or twelve men.

If the widow has male children, they continue to remain there. If she has only female children, they remain with their father's brother and she goes to her parents.

If a man meets with an unnatural death, his corpse gets no decent burial. It is cremated with no ceremonies. There is no pollution in such cases, and the spirit of the dead is not propitiated.

## CHAPTER III

### KINSHIP

The system of relationship among the Vellālas is of the kind termed "classificatory". An account of the kinship terms as it obtains among them is given below :—

#### I. RELATIONS THROUGH FATHER, WHETHER MAN OR WOMAN

Serial number.	English name	Vernacular name
1.	Great grandfather	Pāttan
2.	Great grandmother	Pātti
3.	Grandfather	Pērappan
4.	Grandmother	Avāchi
5.	Father	Appan
6.	Mother	Amma
7.	Father's elder brother	Periyappan
8.	Father's elder brother's wife	Periyamma
9.	Father's younger brother	Chittappan
10.	Father's younger brother's wife	Chittamma

Serial number	English name	Vernacular name
11.	Father's elder brother's son	Annan, if elder, and thambi, if younger
12.	Father's elder brother's daughter	Akka, if elder, and thangachi, if younger
13.	Father's sister	Athai
14.	Father's sister's husband	Māman
15.	Father's sister's son	Machinan
16.	Father's sister's daughter	Thangai

## II. RELATIONS THROUGH MOTHER

Serial number	English name	Vernacular name
1.	Great grandfather	Pāttan
2.	Great grandmother	Pātti
3.	Grandfather	Pērappan
4.	Grandmother	Avāchi
5.	Mother's brother	Māman
6.	Mother's brother's wife	Athai
7.	Mother's sister	Periamma or Chinnamma

## III. RELATIONS THROUGH WIFE OF A MAN

Serial number	English name	Vernacular name
1.	Wife	No name
2.	Wife's father	Māman
3.	Wife's mother	Athai
4.	Wife's brother	Machinan
5.	Wife's brother's wife	Akka, if elder, and thangachi, if younger
6.	Wife's sister	Thangai
7.	Wife's sister's husband	Annan, if elder, and thambi, if younger

## IV. RELATIONS THROUGH HUSBAND OF A WOMAN

Serial number	English name	Vernacular name
1.	Husband's father	Māman
2.	Husband's mother	Athai
3.	Husband's brother	Machinan
4.	Husband's brother's wife	Akka, if elder or <i>thangachi</i> , if younger
5.	Husband's sister	Thangai

In discussing the meaning of each term, we shall begin with :—

1. *Father's father, mother's father, father's mother, and mother's mother.* Pērappan and Avāchi are the names given for grandfather and grandmother on both the paternal and maternal sides. Similarly, Pāttan and Pātti are the names given for the great grandfather and great grandmother on both the paternal and maternal lines.

2. *Māman.*—The Vellālas use the word for father's sister's husband, mother's brother, wife's father, and husband's father. Athai is used to denote father's sister, mother's brother's wife, and wife's mother, and husband's mother.

3. *Machinan.*—This word is used to denote wife's brother and husband's brother.

*Village Organization.*—Marayur forms one of the hamlets of the Vellālas. It has eighty houses. The affairs of the village are administered by a headman called Mannati. He is assisted by a Mantri and Periathanam. The office is hereditary and son succeeds to it. The Mannati holds a large area of land and is held in high esteem so long as he can maintain his position. He presides over marriage ceremonies and other festivities. Mantri is lower in rank. He carries out the biddings of the Mannati. Periathanam is still lower in rank and he carries out the wishes of Mantri.

When any quarrel ensues in a hamlet, the matter is taken to the notice of the Mannati, who sends out a Chakkiliyan

to inform all the villagers. They meet in the village chavadi. Mannati is given a seat of honour. He is seated on a woollen blanket. The Mantri and Periathanam sit behind. The villagers are seated in front. The parties stand with folded hands in front. The aggrieved party makes the complaint and the culprit explains. The Mannati sifts the evidence, and then delivers his judgment. It takes the form of a fine from four annas to one rupee. The amount goes for the propitiation of the village deities. The village dignitaries do not combine in themselves the art of magic. They are now mere shadows of their former selves and do not wield so much influence on their men.

*Economic Life.*—The Vellālas are agriculturists. The Anjanad valley forms a level terrace, two or three miles wide and five miles long. The valley is an area of isolation remote from the great currents of men and ideas that move along river valleys. Mountain agriculture is necessarily laborious and the paucity of arable land precludes the possibility of land lying fallow. Fortunately for Anjanad, rainfall is scanty and soil is clayey. There is no wash of soil. Marayur, Nachinayal, and Karayur present a vast expanse of terraced cultivation of paddy. 327052

The method of cultivation is to dig and build the side of a hill into terraces of from 30 to 40 feet in breadth. The terraces are irrigated by channels which carry water from the Pambanar from a distance which may be measured in miles. Many rice fields are fed in this way. Each terrace gets its water from the terrace above it. The terraces are so graduated that the water may flow from terrace to terrace. Ownership of land is individual. In their agricultural operations, the Vellālas are assisted by the Karavazhi Pulayas. The yield from cultivation is satisfactory. The Government of Travancore have extended the scope of terraced cultivation in this area by constructing a channel about four miles long along the slope of the hill at a cost of a lakh of rupees, thus ensuring a regular supply of water for about 1,000 acres of land.

In Travancore, terraced agriculture is found among the Muduvans and other literate peoples in mountainous taluks. It is found in the Himalayan uplands of Cashmere, Bhutan,

and Assam. It is found in Tibet, China, Peru and is highly developed in Sumatra, Java, Lambok, Luzon, Formosa and Japan. According to Jenks, the terrace-building culture of the Asiatic islands has drawn its inspiration from one source. It is considered to be a survival of a very early culture which spread from the nest of the primitive Malayan and left its mark.

### AGRICULTURAL CEREMONIES

A man on an average cultivates from one to ten acres. About one-fifth of the area is under cultivation of coffee, onion, and ragi, while paddy is cultivated in remaining area. They plough the land with buffaloes or bullocks in April and manure the soil with cow-dung. Before ploughing, they make an offering to Patti Perumal on an auspicious day. They lead a celibate life for eight days prior to the performance of this ceremony. On the ninth day, the temple is gaily decorated with festoons of *konna flower* (*Cassia fistula*). An offering of rice is made. After propitiation, men and women wear flowers on their head. Woe befalls those who wear it before.

They then proceed to the paddy field and yoke the oxen to the plough. Cocoanuts, plantains, betel and nut are placed on the ground and some milk is poured on the plough. They then make the following prayer, "ഭൂമിദേവി അമ്മേ, എങ്കളുടെ നല്ല വെള്ളാമ ഉണ്ടാകണം. എങ്കളെ സന്തോഷമായി കല്പിക്കണം." This means, "Oh Mother Earth, pray give us a bumper crop, and keep us merry". The bulls then make seven rounds of ploughing and they are then unyoked. All then go home and have a hearty meal. They sow seeds in Vaikāsi. Look-outs are put up to guard the crop from wild animals. Women do the weeding.

For one month from the day the paddy crop ripens, women in menses shall not go to the field. A man, who had sexual intercourse the previous night, is prevented from going to the field before bathing. Stakes over which green leaves are tied are driven into the ground to indicate the tabooed area. The above-described persons shall steer clear of the area by taking a tortuous course. If any person breaks the taboo, it will cause damage to the crop.

Before the harvest begins, every man cuts a few blades of corn, and contributes a quarter measure of rice. A pongal is made and a goat is sacrificed in the field. The flesh is then cooked. All partake of the offerings and go home. From next day onwards, harvest is begun.

After harvest, every man gathers his stalks of corn by the field. An offering of bread and fried rice is made. A fowl is sacrificed, and the man goes round the corn stalks letting blood, and places the fowl in the centre. The paddy is then threshed.

An acre of land yields four shalakas of paddy (one shalaka = 100 padis). The expense for cultivation leaves hardly any margin beyond their normal living.

#### LIVESTOCK

The Vellālas keep both cows and buffaloes. Some own up to 50 heads of cattle. They milk cattle once in the morning. The Malappulayas are their grazers. They use milk, butter-milk, and ghee, but keep poor health notwithstanding. Sons inherit cattle. Daughters rely on the pleasure of their parents for any gift.

#### RELIGION

The Vellālas have a hierarchy of gods. They worship Thenkasīnathan every Sunday in the morning. The Karthika and Sivarātri days are grand festive occasions, when a Muduvan supplies honey for the worship and a man of their own caste is the priest. There is profuse illumination all about the temple at night.

2. *Vigneswara*.—They worship this deity in their own village every Friday, when a member of their own caste officiates as priest. They make offerings of rice and pray for their prosperity.

3. *Krishna*.—God Krishna is worshipped in Mārgali and Chithirai on harvesting and sowing occasions. They make an offering of fruits and milk for their prosperity.

4. *Kālī*.—This goddess is worshipped on both sowing and harvesting occasions, when a goat is sacrificed. They offer rice and cooked meat to the deity and pray for their prosperity and safety from wild animals.

5. *Uchmakāli*.—This goddess is propitiated once a year in Āni on a grand scale, when every man presents a goat or fowl. Every man goes to the temple, prepares pongal, offers it to the deity, and sends same home. Women also go home. All the animals are then sacrificed and every man carries back the carcase of the animal he offered. They enjoy a grand feast. *Māriamma* is also propitiated in a like manner in the months of Ādi.

6. *Arunāchi*.—This goddess is propitiated once in seven years during the month of Mārgali. A buffalo is set apart for the purpose. It is allowed to graze in the paddy fields for fifteen days. On the sixteenth day, the Malappulayas catch it and bring it before the deity. The Malappulaya priest then sacrifices it, and offers it to the deity. The flesh is partaken by all the Malappulayas.

7. *Erumanāchi*.—In Chithirai, the Vellālas offer a she-buffalo to the deity once in ten years. It is penned for fifteen days and given food. On the sixteenth day, it is sacrificed by the Malappulayas and offered to the deity. They then partake of the flesh.

8. *Manikuluki*.—This goddess is propitiated on the sixteenth day after the propitiation of Erumanāchi. The Muduvan of Kudakad brings honey and dammer in a basket. A pit is dug 16 ft. × 6 ft. × 3 ft. It is filled with vengai fuel (*Pterocarpus marsupium*). When burning is complete, an offering of honey, cocoanuts, plantains, betel leaves and nuts are placed in front and the following prayer is offered.

ഇരശ്ശേരി, എങ്കളെ കാപ്പാത്തി രക്ഷിക്കണം. നാങ്കൾ റശിയും വെള്ളാമ,  
മുട്ടുകന്നുകൾ, കുഞ്ചുചുവന്തുകൾ നാടെങ്കും നന്നായ് വാഴണം.. This means  
“Protect us, Goddess. May our crop, cattle, and children flourish throughout our land.” Then they go round the fire seven times, and walk through it seven times to the beat of tom-tom. Tender cocoanut water is then poured over their legs. They sit a few yards away. Then a wick dipped in ghee is placed in a lamp filled with water of tender cocoanut and is lit in honour of Velakkunāchi Amman. This is done in perfect silence. The priest is possessed, and he utters some prophetic words. All then pray, partake of the offerings and return home.

9. *Pidari Amman* is propitiated\* in Mārgali, when a figure of a bhutam, man, and woman is made. This is done by all men remaining celibate for fifteen days. They make pongal. When rice is boiling, a goat is sacrificed and blood let on the image. The carcase is taken round and dropped. The pongal is offered by the priest to the two bhutams or spirits with his own hand. Presents of cloth are made to all relations who are all well-fed.

When offerings are made to Manikuluki and *Pidari Amman*, all the men remain celibate for fifteen days and sleep underneath a tree. They do not worship ancestor-spirits.

*Daily Life.*—Women get up early morning, wash their faces, and set the hearth to work. They hull paddy every morning and the rice obtained therefrom is used for cooking. Vessels are then taken, cleansed, and the house and yard swept. Morning meal is prepared. Meanwhile, men attend to their round of duties in the morning and return home at 8 a.m. They have their breakfast. Men then proceed to the field at 9 a.m. and they carry food to the coolies. They work in the fields till 4 p.m. Women go out to the jungle for collecting fuel or for work in the fields. Boys graze cattle, while girls tend the young during the absence of the mother. They bathe in the evening in warm water. They have their supper. Women have their meal last. They take oil bath once a week. Most of them use castor-oil. They cleanse their body and hair with *Unnam fibre* (*Grewia tiliæfolia*). The houses are so huddled together that they are insanitary.

The Vellālas are hospitable to men from other hamlets who may remain with them for ten to twelve days. Such visits are exchanged.

#### PERSONAL APPEARANCE

The Vellālas have a dark brown complexion with an average stature of 5 ft. 3 ins. They are long-headed, and have an average cephalic index of 73.4. The nose is broad and slightly aquiline. The men have their tuft of hair behind, but cropped head is now becoming common. Women tie their hair into a knot behind.

## DRESS

Men wear a loin-cloth 5 to 6 cubits long and  $2\frac{1}{2}$  cubits broad. They put on an upper cloth  $6 \times 2\frac{1}{2}$  cubits. They have now begun to wear shirt and coat. Women wear a coloured cloth 15 to 20 cubits long. A knot is tied with the free end over the right shoulder and then the cloth is worn. They do not wear jackets.

## ORNAMENTS

Men wear ear-rings of gold, rings on fingers, and bangles round the wrist. Women have ear-rings of gold, but wear no nose-screw. They wear necklace of beads and silver bangles.

*Status of Women.*—Women are very obedient to their husbands. They attend all religious functions except the one to goddess Manikuluki. They do not inherit any property. Morality is rated to be low, and cases of sterility are found. In a hamlet of 80 houses there were 10 adult females who were sterile.

*Vital Statistics.*—The Vellālas are declining. In 30 families at Marayur, there are 112 persons, 51 males and 61 females. The average size of the family is 3.7. The average birth-rate is 2.1 and survival rate 1.5. There are 16 children under the age of five, 6 being males and 10 females. Under 20, there are 18 males and 32 females. Judged by their survival rate, they are found to be declining.

*Education.*—The Vellālas of Marayur have a school at Marayur. Ten boys attend the school from a hamlet of 80 houses. Boys are taught the three Rs. They do not pay much heed for learning. Boys are engaged in grazing cattle, and girls in domestic work. They are very backward in point of literacy.

*Conclusion.*—Geographical conditions have condemned the Vellālas to a life of isolation, which appears to be the cause of their backwardness in the race for advancement, as it prevents them from contact with other peoples; excessive heat in summer burns out their energy, and makes them slothful. The debilitating effects of heat and humidity aided by malāria have made them economically inefficient. They are gradually declining.

# SOME ASPECTS OF THE VĀYU PURĀNA

By

MR. V. R. RAMACHANDRA DIKSHITAR, M.A.  
*Lecturer in Indian History, University of Madras.*

(Continued from p. 114 of Vol. IV, No. 1)

## SECTION VII

### AGASTYA AND GREATER INDIA

Among India's sages and seers, Agastya is supposed to have been the L'Indoisateur. From his original abode in Benares, the legends say, he travelled to the far south, made the forest regions of the Dekhan and South India habitable,<sup>1</sup> and established his southern home at the Podiyal hills, a name familiar to the students of Śāṅgama literature. Tradition affirms that this enthusiastic adventurer did not rest content with the cultural conquest of the Dakṣiṇāpatha. He crossed the seas to the Indian Archipelago and pursued his mission with zeal and zest that the cult of Agastya took deep root in the isles of Sumatra, Java and Bali.<sup>2</sup> Scholars who have examined the inscriptions and studied the sculptures with meticulous attention which they deserve, have proved to demonstration that the worship of Agastya is an established fact in these islands.

Tradition handed down by the Purāṇas and the Itihāsas in general and Tamil literary works in particular with regard to Agastya's mission and conquest is corroborated by epigraphic and sculptural evidences not only in South India but in the islands of the Indian Archipelago.<sup>3</sup> Among other Purāṇas the *Skanda Mahāpurāṇa* and the *Agnipurāṇa* furnish us with details as to the mode of worship of Agastēśvara. Confining ourselves to the data furnished by the *Vāyu Purāṇa* we find that Agastya who is celebrated by *Agastya kuṇḍam* in Benares (108, 45), and *Agastya padam* in Gayā (109, 19) and (111, 53) even to this day, visited a number of islands in the Indian ocean. A whole chapter (ch. 48) entitled *Bhuvana-vinyāsa* is devoted to an account of what the Purāṇa calls six *anudvīpās*. The geography seems to tally with our knowledge of these

<sup>1</sup> Rāmā : II, 11, 81 : VI, 117, 13-14.

<sup>2</sup> See B. R. Chatterji, *Indian Cultural Influence in Cambodia*. p. 80 (Cal. Univ. 1928)

<sup>3</sup> See the learned paper of O. C. Gangoly on 'the Cult of Agastya and the origin of Indian Colonial Art,' *Q.J.M.S.*, Vol. XVII, 3 : January, 1927

places. The substance of the chapter can be briefly stated. South of the Bhāratavarṣa, there is the *mahārṇava* which we can easily identify with the Indian Ocean. Here are found scattered a number of islands cut off from one another. Among these not far from the Jambudvīpa or the Indian continent lie six small islands. These are Aṅgadvīpam, Yamadvīpam, Malayadvīpam, Śaṅkhadvīpam, Kuśa (Kumuda?) dvīpam and Vārāhadvīpam. All these are full of different classes of *mlecchas* or the uncivilised. Of these Aṅgadvīpam is said to be a part of the Nāgadeśa and Śaṅkhadvīpam is again a Nāgadeśa where a Nāga king Śaṅkhamukha had his capital. The Malayadvīpam is said to be reputed for sandalwood and for the mountain Mahāmalaya, which is said to be a second *mandara*. It is the residence of Agastya worshipped both by the *devas* and the *asuras*. On the other side of Malaya is located Trikūṭa where is the great city, Laṅkā, the residence of the Rākṣasas. The Malayadvīpa is identified with the modern Sumatra where the chief mountain bears the name Malaya. It is not possible here to enter into a minute discussion of the geography of these islands from indigenous and other sources. Such investigation will neither take us to greater lengths nor produce always certain results.

The Kuśadvīpa is identified with the Sunda Archipelago.<sup>1</sup> The Vārāhadvīpa is possibly the Hog Island near the west coast of Sumatra.<sup>2</sup> The Yamadvīpa, according to Gerini, cannot be Java but can be identified with Yen-mo-na of Hiouen Tsang (629-45 A. D.) which is placed to the south-west of Mahā Campā, and therefore is an island either on the south of the Malaya peninsula or the northern part of Sumatra.<sup>3</sup> The Malayadvīpa which occurs in the Kalyāṇi inscriptions of Pegu of the 12th century<sup>4</sup> is identified with Malaya peninsula forming the southern end of the Indo-China.<sup>5</sup> In the face of the Purāṇa calling it an *anudvīpa* this identification cannot be said to be final. The Aṅgadvīpa is probably Angaman of Marco Polo, and therefore the islands of Andāmān.<sup>6</sup> It is difficult to fix the location of Śaṅkhadvīpa. Gerini evidently has no occasion to examine it. But it may be a reference to Tonkin and Chēhkiang<sup>7</sup> whose early populations appear to have belonged to the same racial stock. The local legends ascribe a Nāga origin to their ancient kings, and further the names of their ancient capitals are connected with the king of the serpents. These remarkably coincide with the Vāyu version. Another interesting feature is that these ancient

<sup>1</sup> Gerini, *Researches on Ptolemy's Geography*, London (1909), p. 237.

<sup>2</sup> *Ibid.*, pp. 448, 677.

<sup>3</sup> *Ibid.*, p. 81.

<sup>4</sup> *Ibid.*, pp. 464-5.

<sup>5</sup> *Ibid.*, p. 395.

<sup>6</sup> *Ibid.*, p. 102.

<sup>7</sup> I have followed Gerini's researches and the authorities cited by him. *Ibid.*, pp. 319-322

capitals are built in the shape of a conch-shell or *śaṅkha*. One of the cities built in this shape in 255 B.C. is Levāthāñ, or Lo-chêng. It also occurs in the inverted form Thāñ-khā-lū, in Chinese, Chêng-kó-lu or Chêng-kó-lou = Śaṅkhala? Still more interesting is the account of the Mūang yōng chronicle which speaks of the conquest of Yünnan and Kiao-Chi by Aśoka. Whether this is true or no, the fact is that the Hindu monarchy was established about 258 B.C. in Tonkin, if not earlier. In these circumstances the identification of Śaṅkhadvīpa with Tonkin seems to be satisfactory.

#### IS TṚṆABINDU TṚṆADHŪMĀGNI?

Intimately connected with the legend of Agastya is the episode of Tṛṇadhūmāgni or Tolkāppīyanār the reputed grammarian of the ancient Tamil Land. There is a Tamil tradition, as pointed out by Naccinārkkiniyar in his learned commentary on the *Tolkāppiyam*, that this Tṛṇadhūmāgni was a disciple of Agastya to whom again Tamil tradition assigns a grammar which is now lost. According to this tradition Tṛṇadhūmāgni was the son of Jamadagni, and Agastya married the sister of Pulastya, named Lopāmudrā.<sup>1</sup> Let us turn our attention to the monuments of Java which are full of the portraits of Agastya and Tṛṇabindu. The most interesting of all is the one at Tjandi Redjo, Java, where two small figures in ascetic robes are found on either side of the main figure which is Agastya. Gangoly is of opinion that the two small figures probably refer to his disciples Tṛṇavindu and Marīci.<sup>2</sup> And this is not impossible in the face of a similar portrait in stone where it is inscribed 'Bhagavān Tṛṇabindu maharṣi'.<sup>3</sup> Perhaps Tṛṇadhūmāgni and Tṛṇabindu are identical names.

There is again a Tṛṇabindu tradition in the *Vāyu Purāṇa*. It occurs in more than one place. Among these references, those in the chapters (70, 30 f and 86, 15 f) are important; while in the former Tṛṇabindu is said to be a son of Dama, who is a grandson of the great Marutta Cakravarti, in the other, Tṛṇabindu is removed from Dama by seven generations. The term *dayadah* used in this connection is significant.<sup>4</sup> For the term also stands to denote a distant descendant of the family. Having thus reconciled the apparently conflicting accounts, we can proceed to examine the history of Tṛṇabindu. He had a daughter who is named Iḍivilā in one place and Draviḍā in another place. In both places it is said that she was the mother of Viśravas, and also wife of Pulastya. It

<sup>1</sup> *Eluttutikāram Siṅgappuppāyiram*, Saiva Siddhanta publication 1923, pp. 14-15.

<sup>2</sup> *O.J.M.S.*, Vol. XVII, p. 181 and figure (9).

<sup>3</sup> *Ibid.*, p. 185.

<sup>4</sup> Ch. 70, 30.

would then appear that the Vaiśālī dynasty to which Tṛṇabindu belonged, had matrimonial alliance with the Pulastya dynasty of which the great Rākṣasa king Rāvaṇa of Ceylon was fourth in descent from Pulastya. Considering the detailed early history of the Vaiśāla dynasty as narrated in the *Mārkaṇḍeya Purāṇa* which carries the story of its rule to the end of the reign of Dama (ch. 132), it seems that the early kings of this dynasty had to encounter often with southern kings, and the great Marutta had to attack the Nāgas once, against the wish of his father Avikṣit.<sup>1</sup> Connecting these incidents with the matrimonial alliance entered by Tṛṇabindu with king Pulastya, it can be inferred that social and political relations were the order of the day between the ruling families of North India and South India. From the fact that Draviḍā is one of the names assigned to the daughter of Tṛṇabindu, it can be conjectured that Tṛṇabindu's wife was a lady of the Draviḍā country, and the daughter born to them was naturally married to Pulastya who was apparently one of the rulers of Draviḍa-dēsa. The genius of Hindu culture lay in accommodating and harmonising, and therefore when such relationships became an established fact, an Āryan origin of the Pulastya dynasty was apparently invented. Rāvaṇa, according to the *Rāmāyaṇa*, was one well versed in the Vedas and their Aṅgas. The Rākṣasas were either an indigenous South Indian tribe like the Nāgas or were degraded Āryans who have fallen from the path of dharma and who had permanently settled in South India and Ceylon. The latter theory gains some support from the fact that the Rākṣasa clans are said to be seven in number and they are as follows: Yātudhānas, Brahmadhānas, Vārtas, Paulastyas, Naiṛtas, Agastyas, and Kauśikas.<sup>2</sup> The names warrant the assumption that the Āryas like Agastya, Kauśika, Pulastya settled in South India, for what reason we do not know, and became the progenitors, each in his turn, of a clan of Rākṣasas.

Coming back to the episode of Tṛṇabindu, we find a contemporaneity of Agastya and Tṛṇabindu or Tṛṇadhūmāgni as given in the Tamil tradition.

Agastya had married a sister of Pulastya, and Pulastya was the son-in-law of Tṛṇabindu. The latter had probably an occasion to visit the court of his son-in-law and found Agastya settled in Draviḍa having become an authority of Tamil language. Probably, as most ancient monarchs did, Tṛṇabindu anointed his son Viśāla on the throne and sat at the feet of the old Agastya to learn the beauties of the Tamil language and literature. This is not unnatural as we have

<sup>1</sup> *Vāyu Purāṇa*, ch. 129-131.

<sup>2</sup> *Ibid.*, ch. 70, 55-6.

a similar example of it in the Śāṅgam literature. There once came to the court of Madura a northern king Pirakattan or Brahma-datta by name. Kapilar, the great Śāṅgam poet noticed in him lack of regard for Tamil poetry. Consequently he sang to him the poem *Kurinjippattu* after which Pirakattan became a devoted student of Tamil so much so that he became the author of a grammatical treatise. These mythical accounts give the indication to us that they corroborate to a certain degree ancient tradition of the Tamil land. It would appear that these mythical personages became hidden by the mass of obscure tradition and were once again made living personalities when historical persons bearing almost similar names played a glorious part in enriching the Tamil literature and in perhaps carrying their culture to the Far East. Tolkāppiyānār, as I have said elsewhere<sup>1</sup> and his master Agattiyaṇār, probably a historical figure, were contemporaries and could not have lived earlier than the fourth century B. C.

## SECTION VIII

### MUSIC, SCULPTURE AND PAINTING

Among the fine arts Ancient India was able to develop, music and dancing claim a large share. Painting and other allied arts are later growths. It has been realised, as is explained clearly in the *Viṣṇu Dharmottara Purāṇa*,—generally regarded as a supplement to the *Viṣṇu Purāṇa*,—that one is dependent on the other. First music, next dancing and then painting are regarded as the process of evolution of the art of painting. Without music dancing cannot exist, and the rules of the art of dancing imply those of the art of painting.<sup>2</sup> We have evidence to indicate that painting was practised in ancient times on a large scale. The *Jātaka* tales speak of portrait sculpture as well as picture galleries.<sup>3</sup> According to Vātsyāyana the painting requisites such as the drawing-board, brushes etc., were in the possession of every citizen, thereby implying that every cultured man was an artist by himself.<sup>4</sup> These references unmistakably bear out that long before the epoch of the *Jātakas* and that of the *Kāmasūtra*, the arts of music and dancing were in a developed condition. But this development could not be that which witnessed the composition of the *Bharatanāṭya Śāstra*, where perhaps a systematic treatment of these arts was attempted for the first time so far as their secular side was concerned. *Gānam* is the technical

<sup>1</sup> *Studies in Tamil Literature and History*, p. 21.

<sup>2</sup> Pt. III, ch. 2. 5, 6 : See also the *Viṣṇudharmottara* by Stella Kramrisch; Cal. Univ. 1928, p. 31.

<sup>3</sup> *Jātakas*, Vol. VI, pp. 159, 212 and 223.

<sup>4</sup> *Kāmasūtra*, pp. 43-51, sūtras 5-13.

term to denote secular music, while *Gāndhārvam* is the expression for divine music.<sup>1</sup> The arts of music and musical compositions are as old as the Vedic times. In fact, the *Sāma Veda* is said to be a musical rendering of the *Rig Veda*. Out of the orthodox school represented by the *Nārādīya śikṣa*, there developed the secular school which catered to the society at large.

In the light of the above remarks we can proceed to an examination of the musical chapters in the *Vāyu Purāṇa*. The latter half of chapter (86) deals with *Gāndhārvam* and the whole of the succeeding chapter is a treatise on the *Gītālaṅkāra nirdeśa* or determination of the characteristics of a musical composition. Taking the first chapter, we find that the rules which are laid down are a mingling of both the schools, orthodox and secular. The *Purāṇa* does not mention either the famous author Bharata or his treatise. We have therefore to credit these portions of the *Purāṇa* as materials of an earlier epoch, earlier than *Bharatanāṭya Śāstra*. It may be noted in passing that in some respects the injunctions agree with those of the *Nārādīya śikṣa*. The texts are usually corrupt and need careful editing. In reviewing the matter contained therein we meet with a technical term *svaramaṇḍalam*. This is constituted by seven *svaras* (notes), three *grāmas*<sup>2</sup> (scales), twenty-one *mūrchanas* (rise and fall of tones), and forty-nine *tānas* (grouping of notes). Analysing these further, every *grāma* has seven *mūrchanas*. The names of these *grāmas* are *madhyama grāma*, *śadjagrāma* and *gāndhāragrāma*. The seven *mūrchanas* of the *madhyamagrāma* are as follows :

- |                           |                         |
|---------------------------|-------------------------|
| (1) Sauvīri               | (Probably Sāveri).      |
| (2) Harinaśva             | Presiding deity, Indra. |
| (3) Kalopanata            | Do. Maruts.             |
| (4) Śuddhamadhyama        | Do. Gandharvas.         |
| (5) Śārṅgi (also Mārgi)   | Do. Mṛgendra.           |
| (6) Pāvani (also Pauravi) |                         |
| (7) Dṛṣṭaka (Hṛṣyaka)     | Presiding deity, Nāgas. |

Of these, the second is said to be peculiar for the Hari country and the fourth to Marudeśa or desert regions. The *mūrchanas* of *śadja-grāma* are also seven but mention is only made of four. It is not possible to guess why the last three are omitted. The four are :

- |                     |                                       |
|---------------------|---------------------------------------|
| (1) Uttaramandra    | Presiding deities, Brahmā and Dhruva. |
| (2) Janani (Rājani) |                                       |
| (3) Uttarāyatā      | Presiding deities, Brahmā and Pitṛis. |
| (4) Śuddha śadja    | Do. Agni.                             |

<sup>1</sup> cp. M. S. Ramaswami Aiyar : *Svaramelakalānidhi*, Intro. pp. lxxii-lxxiii (Annamalai University, 1932).

<sup>2</sup> The *Paṇ* and *Pālai* of Tamil literature can be equated with *mūrchanā* and *grāma*.

Under the categorical list belonging to the *Gāndhāragrāma* occur ten *mūrchanas* instead of seven. Apart from seven, the remaining three *mūrchanas* are to be taken as belonging to the *ṣaḍjagrāma* where we noticed an omission.

This is another piece of evidence to show that the original *Purāṇa* has been tampered with. The ten *mūrchanas* mentioned are:

- (1) Agniṣṭoma.
- (2) Vājapeyā.
- (3) Pauṇḍarīka.
- (4) Aśvamedha.
- (5) Rājasūya.
- (6) Cakrasuvarṇaka.
- (7) Gosavam.
- (8) Mahāvṛṣṭikam.
- (9) Brahmādānam.
- (10) Prājāpatyam.

Among other constituents of the *svaramaṇḍalam* mention was made of the forty-nine *tānas*. While later works on musical science recognise 28 *tānas* to *ṣaḍjagrāma* and 21 *tānas* to *madhyamagrāma*, the *Vāyu Purāṇa* distributes them among the three *grāmas* as follows :

20	<i>tānas</i> for <i>madhyama grāma</i>
14	„ <i>ṣaḍjagrāma</i>
15	„ <i>gāndhāragrāma</i>
—	
49	Total
—	

It is significant to note that the *Gāndhāragrāma* or divine music became lost in course of time. Again the names of the *tānas* which are given in the *Vāyu Purāṇa* are different from those found in extant music works. The matter contained in the *Vāyu Purāṇa* is certainly old, older than any regular treatise on the subject of music. It is not necessary here to give the names of these forty-nine *tānas* as found in the *Purāṇa* and other later works.

In the chapter entitled *Gītalāṅkāra nirdeśa*, much valuable matter is scattered and affords food for a student of ancient Indian music. As has been already remarked the compiler of the *Purāṇa* does not mention the name of the authority on which he has based his theory of music. Neither does he claim it as his own ; because he uses the phrase '*pūrvācārya matam budhva.*' In this respect he has followed the ancient teachers on music. In musical composition the following are to be taken into account : *alāṅkāra* (grouping of notes), *varṇa* (method of pronouncing notes), *padas*, (a priori and a posteriori), *sthānas* (the places from where the notes originate) and *pravacāra* (movements). It is said that the *Alāṅkāras* are thirty in number and

these should follow *varṇas*. This will enable one to fix the *rāgam* or musical modes. The *sthānas* are three and are *udara* (belly), *kaṇṭha* (neck) and *siras* (head). The *varṇas* are four—*sthāyi*, *prasañjācari*, *avarohanam*, and *ārohanam*. For the accomplishment of *Lakṣaṇa* there are 103 kinds of what are known as *varṇikas* which take their origin from both nose and mouth. The importance of *Alaṃkāra* is shown in the attainment of *Samsthānam* (form), *Prāmāṇam* (measure), *Vikāram* (modification) and *lakṣaṇam* (definition). The relation of *varṇa* to *alaṃkāra* is comparable to the adornment of different jewels by a woman.

Without entering into further details, we shall take up for examination one or two terms which afford general interest. There is an interesting term *bahirgītām* which is said to be *pañcadaivatam*. This implies a scenic performance on the stage. *Bahirgītām* is the song sung in front of the stage before the regular dramatic performance begins. It is to be regretted that no details of the stage and actions relating to it are furnished by the *Purāṇa*.

The concluding section of the chapter throws some light on the different kinds of dancing in vogue. Very few details are there connected with the technique of the art of dancing. There is a very corrupted stanza which, if reconstructed in the light of the texts of the *Yājñavalkya-smṛiti*,<sup>1</sup> would supply important data with regard to ancient musical pieces connected with dancing. The stanza runs as follows :

द्वे चापरान्तिके विद्याद्वयशुद्धाष्टकस्य तु  
प्राकृते वैणवैश्चैव गान्धारांशे प्रयुज्यते ॥ ch. 87.34.

As reconstructed :<sup>1</sup>

द्वेऽपराचान्तिके विद्याद्वयं शुद्धोभ्यकस्य तु  
प्राकृते वैणवैश्चैव गान्धारांशे प्रयुज्यते ॥

Among the musical pieces recommended to the ascetics as enabling them to attain *mokṣa* or salvation by Yājñavalkya, some find mention in the *Vāyu Purāṇa*.

<sup>1</sup> Cp. *Yājña.* III, st. 113 and 114.

अपरान्तकमुद्धोभ्यं मद्रकं प्रकरीं तथा ।  
औवेणकं सरोबिन्दुमुत्तरं गीतकानि च ॥  
ऋग्गाथा पाणिका दक्षविहिता ब्रह्मगीतिका ।  
गेयमेतत्तदभ्यासकरणान्मोक्षसंज्ञितम् ॥

The Purāṇa refers to the dance *Kaiśikam* of which seven varieties are distinguished. *Uttaram* and *Upohanam* are again musical pieces related to dancing. *Yānam* is another kind of dance. In this connection our attention is drawn to another technical term called *vytti* which occurs here wrongly as *buddhi*. (*Ibid.* st. 43.) It determines the disposition of the mind as to the mode of singing. There are three kinds—*vārtika*, *dakṣiṇa*, and *samavāya*, determined by two *mātras*, four *mātras*, and eight *mātras* respectively. All these *vyttis* are used in the *suvara murchana*.

We began this section with the statement that painting and probably sculpture are the results of music and dancing. On this very interesting subject the Purāṇa gives nothing by way of information. Incidental references to portrait sculpture and painting are made in one or two places. These lead us to infer that the Purāṇa is aware of the art which was largely in use in the temples dedicated to gods. In the language of philosophy the Purāṇa calls the whole universe a *citra* (picture) as if painted on a wall (*bhittāvivarpitam*) by the mythical artist (*Citrakārani*) who is given the appellation of *Maya*.<sup>1</sup> Bereft of its philosophical aspect, it conveys to us the idea of a picture being painted on a wall by an artist. More interesting is the other reference where mention is made of portrait sculptures. In the temple dedicated to Śiva there were portraits sculptured in the great pillars, of gods and animals which beautified the whole buildings.<sup>2</sup> In the representation of human figures and animal figures as well in sculpture, the Purāṇa aims at lifelike pictures exhibiting sensuous passions. The animals carved here are lions in thousands and the carving of lions is said to be invariably difficult. Both the gods and the lions sculptured are representations of Indian mythology and hence monstrous, and incongruous. Here is a description of the gods of the quarters. They are excellent in form, wearing *cūḍamāṇi* on their head, attired in clothes resembling the hue of the clouds, lustrous, full of prowess, with a white garland, seeming to roar, and wielding *vajra* and *śula* in their hands. The lions are again represented as being linked one with the other from pillar to pillar by a chain, and as living in comfort.<sup>3</sup>

<sup>1</sup> Ch. 104, 41.

<sup>2</sup> Ch. 101; 289-291.

मन्दराद्रिप्रकाशानां बलेनाप्रतिमोजसाम्  
हारकुन्देन्दुवर्णानां विद्युत्वन निनादिनाम् ॥  
चूडामणिधराणां वै मेघसंनिभवाससाम्  
श्रीवत्साङ्गितवज्राणामङ्गुलीशलपाणिनाम् ॥

Thus we see that music, dancing and sculpture which are secular arts have been intimately connected with the national religion of the land. For as a great historian has remarked it is mythological poetry that has been the foundation of all national religions both in the East and in the West.

#### SECTION IX

##### ASTRONOMICAL AND OTHER DATA

H. H. Wilson depending on Bentley's researches on ancient Hindu astronomy referred to two significant statements in the Purāṇa which supply some chronological clue from an astronomical standpoint. One is the length of a Yuga which is reckoned to be one of five years' duration and of which we shall speak presently, and the second is the date of the commencement of the solar year. It is said that this cycle commences when the Sun is in the Śravaṇa, i.e. when Śravaṇa happens to be the first of the Nakṣatras and Māgha the first of the months. These two are propositions which do not conform to the accepted standards. The Yuga of five years is to be traced back to what is known as the first period of Hindu astronomy, roughly between 1181-961 B.C. The mode of computation with regard to the solar year is possible only in the age between 204 B.C. and 44 A.D. It is further significant to note that this mode of reckoning the solar year was abandoned after 538 A.D.

The above statements must either take us to a period between 1181 and 961 B.C. or 204 B.C. and 44 A.D. The compilation of the Purāṇa could not be so early as the first though it may contain such old material. The more reasonable date will be the latter, i.e. somewhere between 204 B.C. and 44 A.D. But taking into consideration other circumstances, the date of the compilation may be pushed back to two or three centuries. It may be, however, pointed out that some portions of the Purāṇa were added at the period between B.C. 204 and 44 A.D., and some more during the Gupta epoch as we shall presently see.

Besides these there are many details of astronomical interest, so much so that the Purāṇa is an invaluable treatise on ancient astronomy.

एवं दिशानां देवानां रूपणोत्तमशालिनाम्  
 तस्य प्रासादमुख्यस्य स्तम्भेषूत्तमशोभिषु ॥  
 संयताग्नि मयीभिस्तु शृङ्खलाभिः पृथक्पृथक् ।  
 मायासहस्रं सिंहानां सुखं तत्र निवासिनाम् ॥  
 स्तम्भेऽप्यपासुताषष्ठं त्रयम्बकस्य निवेशने ।

We have details regarding the various planets, stars and the milky path in respect of their size and locale, their cars and steeds.<sup>1</sup> The interrelation between the Pole or the Dhruva and these, is further treated as being attached to it by ropes of air.<sup>2</sup> The role played by this Dhruva in the various planetary *maṇḍalas* or orbits is something unique and incomprehensible. It is said every movement and every action are to be traced to this.<sup>3</sup> On it depends the rainfall also.<sup>4</sup>

Other interesting details of an astronomical character are that Māgha is the first of months and that Śraviṣṭa is the first of Nakṣatras.<sup>5</sup> While we are familiar with Uttarāyaṇam and Dakṣiṇāyaṇam commencing with Puṣyam (Tamil, *Tai*) and Āṣāḍha or (Tamil, *Āḍi*) months the Purāṇa rules that the months of Tapa (next to Puṣyam and Nabha (next to Āṣāḍha) (*Māsi* and *Āvani* of Tamil) commence the two *ayanams* respectively.<sup>6</sup> Again in the account of the planets (*grahas*) though all the nine are mentioned by name, still only seven are treated as if they are orthodox *grahas*. The two that have been left as unorthodox are *kētu* and *rāhu* and tradition has it that these two are of āsuraic nature. Among the seven again a distinction is made as *mandavicārīṇaḥ* (slow-moving ones) and *śīgragaḥ* (quick-moving ones). To the first category belong the Saura (Saturn), Angiras (Bṛhaspati) and Vakra (Śanaīścara). To the second category belong the four big *grahas* Sūrya, Candra, Budha, and Śukra.<sup>7</sup> It may be pointed out here that Varāhamihira, the reputed astronomer, who lived at the commencement of the sixth century A.D., continues this tradition, but after him the *navagraha* theory came to stay.

There is a wealth of material on astronomical and astrological modes and methods. In fact the Purāṇa itself says that they are so much that they defy all knowledge and erudition. It states that one must get acquainted with the theory and then put it into practice. By observation one must draw one's own inference. But in recommending this mode of study of the subject, the Purāṇa speaks of five means which would render the approach to it easy. These are cakṣu (eyes), śāstram (science), jalam (water), lekhyam (written document) and gaṇitam (calculation).<sup>8</sup> But the Purāṇa is in correspondence with the injunctions of the *Dharmaśāstra* when it condemns those who embrace astrology as their profession. It is said that these find a place only in hell.

नक्षत्रैर्जीवते यश्च नरोगच्छत्यधोमुखम् ।

<sup>1</sup> Chap. 50-53.

<sup>2</sup> Chap. 51, 6-11.

<sup>3</sup> 53-112-3.

<sup>7</sup> Chap. 53, 71-72.

<sup>2</sup> Chap. 51-9.

<sup>4</sup> *Ibid.*, 52; Chap. 52, 90-99.

<sup>6</sup> Chap. 50, 201.

<sup>8</sup> Chap. 53, 121-3.

The *Arthaśāstra* denounces the person who consults the stars too much.<sup>1</sup>

But these are common details which are ordinary and do not break new ground in respect of chronology.

### ON TIME

The Purāṇa contains an ancient account on the division of time. There are several chapters<sup>2</sup> where a reference is made to *Saṅkhya* and *Saṅkhyavid* or expert in calculations. The division of time begins with the smallest unit *nimeṣa*<sup>3</sup> and goes to that which is beyond reckoning. Though we are apt to regard the mode of computation crude, still it proves to demonstrate the genius of the Hindus in mathematical science. The Purāṇa bears ample testimony to this. Among the various terms, the word *yuga* is of special import. Besides mention of the ordinary four *yugas* and their characteristics<sup>4</sup> and a measure equal to Dhanur daṇḍa<sup>5</sup> we have the *yugam of Ravi* (ch. 50, 184) and the *Saptaṛṣi yugam*.<sup>6</sup> But what is more important here is the *yugam of five years (vatsaras)*.<sup>7</sup> These five years are Samvatsara, Parivatsara, Idvatsara, Anuvatsara and Vatsara. Their presiding deities are the fire, the sun, the moon, the wind, and Rudra respectively.<sup>8</sup> It is said that this cycle happens with Śraviṣṭha and ends with Śravaṇa, both lunar asterisms, and it revolves like a wheel according to the movement of the Sun :

‘ sravaṇāntam sraviṣṭhādi yugam syāt pañcavārṣikam |  
bhānorgati-viśeṣena cakravatparivartate || 53, 116.

In this connection, mention may be made of a statement in the Purāṇa that a Samvatsara or a year is reckoned to be of five parts :

यश्चैव पञ्चधात्मा वैप्रोक्तः संबत्सरो द्विजैः ॥

In this and in the following statement that the sons of the *Rtus* are called *artavas* and are five in number, the Purāṇa re-states the Vedic idea of the seasons. According to the *Kṛṣṇa yajus Samhitā* (*Kaṇḍa* VI, I *Prasṇa* II and 11th *Anuvāka*) and the *Taittirīya Brāhmaṇa*,<sup>9</sup> there are only five *prayājas* recognised. The *Prayājas* is only a Vedic term for the *Rtus*. The Vedic calendar which knows the six *Rtus* or seasons makes the *Hemanta* and *Śisīra Rtus* as constituting one *Rtu*.

A word in this connection may be said about the concept of Brahmā's day and night and that of the *Manvantaras*. While the

<sup>1</sup> Ch. ix, 4.

<sup>2</sup> Ch. 53, 115.

<sup>3</sup> Ch. 101, 125.

<sup>4</sup> Ch. 31, 28 ; 50, 183, etc.

<sup>5</sup> Ch. 31, 24 f ; Ch. 50 esp. 169 ; 101. 93 ff.

<sup>6</sup> Ch. 7, 22 ; 23, 83 ; 31, 21.

<sup>7</sup> Ch. 99, 419.

<sup>8</sup> Ch. 56, 20-21.

<sup>9</sup> Anand series, p. 722.

period of the creation is said to be Brahmā's day, the period of deluge is his night. The following table is given :

1000 Kalpas	=1 Abda (of Brahmā).
8000 Abdas	=1 Yuga.
1000 Yugas	=1 Savana.
6000 Savanas	=1 Life of Brahmā.
Crore × 1000 Crores	=1 Parārdha.
2 Parārdhas	=1 Param.

In this connection the Purāṇa makes a remarkable statement that there is neither day nor night for Brahmā. It is *upacāra* (complimentary) and is intended for the sake of the welfare of the world.

We can now proceed to an examination of the *manvantarams*. A *manvantaram* rests on the saptaṛṣis, devas, pitris, manus, and prajas. These are created at the beginning of the Creation and destroyed at the commencement of the Dissolution. The devas are sons of ṛṣis and ṛṣis are also sons of the devas. Pitris are also sons of devas. The fourteen *manvantarams* are represented by respective Manus who represent again the fourteen faces of Brahmā which are said to be fourteen vowels. The term Manu stands for resolution as the term Dakṣa for prāṇa or life. This is what we may term to be the philosophical explanation of the *manvantaras*.

## SECTION X

### GENUINE HISTORICAL TRADITION

That myth has been mixed up with genuine history in the Purāṇas as a whole, goes without saying. In spite of that curious mixture of facts and fiction, ceaseless investigation calls attention to certain features of genuine history. It must be remarked at the outset that whatever is spoken of as belonging to the kingdom of gods is legendary, and notwithstanding the elaborate genealogies it would be waste of time to go into a searching examination of mythical personages and their descendants. But the sections dealing with the *vaṃśa* or genealogy of ṛṣis and kṣatriya kings are worth investigating by a student of traditional history. The following is a categorical list of the sages whose genealogies are given to some extent in the *Vāyu Purāṇa*: Aṅgīrasa, Vasiṣṭha, Kaśyapa, Bhṛgu, Atri, Kaṇvā, Viśvāmitra, Agastya, Pulastya, Pulaha and Kratu. Of these the *vaṃśas* of the last four are not furnished. Even that of Viśvāmitra is meagre.<sup>1</sup> The *vaṃśa* of Pulastya is connected with the royal line of Vaiśālī of which Marutta Cakravartī was an honoured

<sup>1</sup> Ch. 91, 96-102.

monarch.<sup>1</sup> Even with regard to the genealogy of Atri<sup>2</sup> and Kaṇvā,<sup>3</sup> there is only a bare outline. Leaving out of our account the mythical Atri, Prabhākara can be claimed as a historical person.<sup>4</sup> It is said that he married the ten daughters of Bhadrāśva and Ghṛtāci. Dattātreyā<sup>5</sup> is a semi-legendary figure and he is looked upon as an incarnation of Viṣṇu.<sup>6</sup> The Ātreyas are mentioned as hymn-makers.<sup>7</sup>

With regard to the Kaṇva *vaṃśā*, two different origins are furnished in the Purāṇa. The earlier origin traces the genealogy from Medhātithi, a son of Kaṇvā.<sup>8</sup> The later origin ascribes the beginning of the *vaṃśa* from Ajāmiḍha.<sup>9</sup> It is significant to note that the Purāṇa misreads Kaṇvā and Kāṇvāyana as Kaṇṭha and Kāṇṭhāyana. Both accounts agree that Kaṇvā had a son Medhātithi to whom the Kāṇvāyanas trace their descent. The difficulty lies in the fact that in one place Kaṇvā is the son of Apratiratha, a son of king Matinara, and in another place a son of Ajāmiḍha, a king who was Matinara's successor by some 32 generations,<sup>10</sup> thus indicating a great discrepancy in time.

The genealogies of Āṅgīrasa, Vasiṣṭha, Bṛghu and Kaśyapa are given in detail.<sup>11</sup> The Āṅgīrasas claim their descent from Atharvan Āṅgīras who is apparently a mythical figure.<sup>12</sup> A number of distinguished sages figure in this line. Some of them are Bharadvāja, Dīrghatamas, Vāmadeva and Śaradvant. A sage of the line is mentioned Ayapya<sup>13</sup> and the same is corruptly named Ajasya in the *Matsya Purāṇa*.<sup>14</sup> The correct reading, as pointed out by Pargiter, seems to be Ayasa. Bharadvāja is the son of Bṛhaspati, the Purohita of gods. Another name of Dīrghatamas is Gautama.<sup>15</sup> Śaradvant is the paternal cousin of this Dīrghatamas.<sup>16</sup> We have again a Śaradvant who is the son of a Gautama whose line is given in the North Pāṇcala dynasty.<sup>17</sup> In all, thirty-three important personages are mentioned, all of them being hymn-makers.<sup>18</sup>

The genealogy of Vasiṣṭha next claims our attention.<sup>19</sup> The *vaṃśa* of this seer is rather difficult to work up. We meet with Āpava Vasiṣṭha, son of Varuṇa. Arjunakārtavīrya got his

<sup>1</sup> Ch. 70, st. 29-56.

<sup>2</sup> Ch. 99.

<sup>3</sup> Ch. 94, 10-11.

<sup>4</sup> Ch. 59, 104.

<sup>5</sup> Ch. 99, 169-70. (Cp. *Matsya P.*, Ch. 49, 46-7 and Ch. 50-5).

<sup>6</sup> See Pargiter, *An. His. Trad.*, p. 225.

<sup>7</sup> For the genealogy of the Āṅgīrasas see Ch. 65, 97-108.

<sup>8</sup> Cp. *Matsya*. Ch. 196.

<sup>9</sup> Ch. 196, 4.

<sup>10</sup> *Ibid.*, 48 and 57-62.

<sup>11</sup> *Ibid.*, 102.

<sup>12</sup> For the genealogy of the Vasiṣṭhas see Ch. 70, sl. 79-90.

<sup>13</sup> Ch. 70, 67-78.

<sup>14</sup> Ch. 99, 123-27.

<sup>15</sup> Ch. 98, 89.

<sup>16</sup> Ch. 99, 130-1.

<sup>17</sup> Ch. 59, 101.

<sup>18</sup> Ch. 99, 47-61 and 88-92.

<sup>19</sup> Ch. 99, 201-5.

hermitage burnt down and was consequently cursed.<sup>1</sup> In one place Vasiṣṭha and Arundhatī were the parents of a hundred sons, of whom Śakti was the eldest.<sup>2</sup> Vasu or Vasumān is said to be a son of Vasiṣṭha and is one of the seven sages in heaven.<sup>3</sup> Āsmaka is said to be the son of Vasiṣṭha by appointment 'by the queen of Kalmāṣapāda to continue Ikṣvāku's line.<sup>4</sup> Another Vasiṣṭha is mentioned as a contemporary of Nemi, king of Videha. This king became Videha (bodiless) on account of the sage's curse.<sup>5</sup> Vasiṣṭha again appears as a contemporary and Purohita of Ikṣvāku, the celebrated king of Ayodhyā. Under orders from Vasiṣṭha, Ikṣvāku banished his son Vikukṣi, for having taken unclean meat in a śrāddha.<sup>6</sup> We have Vasiṣṭha as Purohita of Daśaratha and his son Rāma, according to the *Rāmāyaṇa*. It cannot be that the same Vasiṣṭha continued to live for ages together. The truth seems to be that there were a number of persons who apparently belonged to the family of the mythical sage Vasiṣṭha.

Turning our attention next to the *vaṃśa* of the Bhārgavas, there is as usual the confusion arising from the fact that genuine tradition is mixed up with myth.<sup>7</sup> Bhṛgu Prajāpati is the progenitor of this line. His son is Uśanas Śukra who is identified with the planet Venus. Śukra is the Purohita of the Asuras.<sup>8</sup> Elsewhere he is claimed as the son of Umā and Śiva.<sup>9</sup> Other seers of this line are Cyavana<sup>10</sup> and his son Ātmavāna or Ātmavant who<sup>11</sup> is mentioned as a hymn-maker among eighteen others. He is probably Apanavāna of the *R̥gveda*. Other names of this *vaṃśa* are Ṛcika, Gṛta-Samada, Pṛthu, and Mārkaṇḍeya.

The last important Brahman family is that of Kaśyapa.<sup>12</sup> It is said that the Progenitor Kaśyapa had two sons Vatsāra and Asita. Vatsāra had in his turn two sons Nidhruva and Raibhya. While the latter was progenitor of the Raibhyas, the former was that of the Kuṇḍapāyins. The genealogy further shows that Asita's son was Devala connected with the Śāṇḍilyas. We hear of these in the reign of Dilīpa Khaṭvāṅga, King of Ayodhyā.<sup>13</sup> Thus Raibhyas, Śāṇḍilyas, and Nidhruvas or Kuṇḍapāyins come under the category of Kaśyapas. Kaśyapa, Vatsāra (also Vatsara), Vibhrama, Raibhya, Asita and Devala are all said to be Brahmavādins.<sup>14</sup>

<sup>1</sup> Ch. 94, sl. 40, 45.

<sup>2</sup> Ch. 64, 27.

<sup>3</sup> Ch. 89, 4.

<sup>4</sup> See *Vāyu P.*, Ch. 65, 72-96; Cp. *Matsya* 195, 11-46 and *Brahma* III. 1. 73.

100.

<sup>5</sup> Ch. 62, 80 : 97, 94, etc.

<sup>6</sup> Ch. 86, 1-2 and 23.

<sup>7</sup> For genealogy see *Vāyu P.*, Ch. 70, 24-29.

<sup>8</sup> Ch. 73, 41-2.

<sup>2</sup> Ch. 2, 10.

<sup>4</sup> Ch. 88, 177.

<sup>6</sup> Ch. 88, 12-20.

<sup>9</sup> Ch. 72, 15.

<sup>11</sup> Ch. 59, 96.

<sup>14</sup> Ch. 59, 103.

More important for historical purposes are the Kṣatriya genealogies, or broadly, genealogies of different ruling dynasties. All these are derived from the primeval Manu Vaivasvata, son of the Sun God. According to the version of the *Vāyu Purāṇa* Manu had nine sons and a daughter Ilā. Purūravas was born to her by Budha. Then she was turned into a man by name Sudyumna.<sup>1</sup> He had three sons Utkala, Gayā and Vinatāśva who got three kingdoms respectively.<sup>2</sup> The nine sons of Manu were Ikṣvāku, Nahuṣa, Dhṛṣṭa, Saryāti, Nariṣyanta, Prāṁśu, Nabhagoriṣṭa, Karuṣa and Prṣadhra.<sup>3</sup> The eldest Ikṣvāku was the progenitor of the solar race which ruled from Ayodhyā. He had a hundred sons of whom Vikukṣi was the eldest and successor. Of the other sons, 50 were entrusted with small states in the north and 48 in the south (Dakṣiṇāpatha).<sup>4</sup> Vikukṣi was succeeded by Kakutstha. The two remaining sons of Ikṣvāku were Nimi (also Nemi) and Daṇḍa. Nemi in his turn became the progenitor of a separate dynasty with its capital at Videha. This line is to be traced from his son Mithi, and hence the country of Mithilā. He was also called Janaka, and must be distinguished from Śīrādhvaja Janaka, the father of Śītā and father-in-law of Rāma.<sup>5</sup> Daṇḍa was the other son of Ikṣvāku who was in charge of the region which came to be known as the Daṇḍaka.<sup>6</sup>

Passing on to the other sons of Manu, nothing is known about Nahuṣa. Pargiter substitutes Nabhaga for Nahuṣa. Dhārṣṭakas sprang from Dhṛṣṭa,<sup>7</sup> Kārūṣas from Kārūṣa<sup>8</sup> and Śaryātas from Śaryāti.<sup>9</sup> Nariṣyanta and Prāṁśu are of the Vaiśāla dynasty<sup>10</sup> as also Nābhāgoriṣṭa. Pargiter substitutes Nabhanediṣṭha.<sup>11</sup> Prṣadhra<sup>12</sup> was cursed for having killed his teacher's cow.

We have then the glowing history of the Aila line which had its capital at Pratiṣṭhāna. While Āyu succeeded Aila, a brother of his, Amāvasu established himself at Kanyākubja (Kanuj). Kṣatravṛddha, a son of Āyu, founded the kingdom of Kāśi (Benares). Under Yayāti the kingdom grew into an empire and four of his sons were appointed over the conquered territories, the fifth Pūru succeeding him. The Haihayas and Yādavas are offshoots of the line of Yadu, son of Yayāti occupying the southern and the northern half of the original kingdom. When the power of the Pauravas began to decline, the Yādava king Śaśabindu made headway into their territory.

<sup>1</sup> See the whole of ch. 85.

<sup>2</sup> Ch. 85-4.

<sup>3</sup> For details, see the whole of Ch. 89.

<sup>4</sup> Ch. 88, 4-5.

<sup>5</sup> *Ibid.*, 23-9.

<sup>11</sup> *Ibid.*, 3, 22.

<sup>2</sup> Ch. 99, 266.

<sup>4</sup> Ch. 88, 8 ff.

<sup>6</sup> Cp. *Rāma* VII 81, 18-19.

<sup>8</sup> Ch. 86, 2-3.

<sup>10</sup> *Ibid.*, 12.

<sup>12</sup> *Ibid.* 1, 2.

The next important king of this traditional history is Māndhātṛ. He was a great conqueror and brought under his sway the kingdoms of Kanyākubjas, of Dṛuhyus, and also of Ānavas. The progenitors of the Dṛuhyus and Ānavas are Drahyu and Anu, sons of Yayāti. A Druhyu king Aruddha was killed by Māndhātṛ and his successor Gāndhāra was confined to the north-western province, the then Gāndhāra country.<sup>1</sup> Mucukunda a son of Māndhātṛ built Māhīṣmatī which soon took the place of Ayodhyā in political importance.

The following are other important dynasties which were more or less branches of the existing stocks. Mention was already made of the kingdom of Kanyākubja. One of its earlier kings was Jahnu about whom legends are narrated. Under him it attained some prominence.<sup>2</sup> The next important king is Amṛtarayas who is said to have founded the Magadha.<sup>3</sup> Secondly were Tālajaṅghas who were Haihayas whom Sagarā defeated and extended his empire.<sup>4</sup> Coming to Ayodhyā we find some of its great kings were Dilīpa, Raghu and Daśaratha. The reign of Rāma, the son of Daśaratha gives us a peep into the ancient history of the Dekhan. The other sons of Daśaratha and their sons are mentioned with their respective kingdoms to which they were appointed.<sup>5</sup> With them the traditional history of the Ayodhyā kings ends.

The history of the Vaiśālī dynasty is given in two places and much of it is corrupt. A good account of the early history of this dynasty is furnished by the *Mārkaṇḍeya Purāṇa* to which a reference has been made before.<sup>6</sup> The Ānava kingdom became split into five, of which Aṅga was one. Others were Vaṅga, Kaliṅga, Puṇḍra, and Brahma. Their capital was Mālinī which became Campāvati or Campā under the rule of a member of this line, by name Campā. The dynasty of the Aṅgas came to an end practically with Karṇa.<sup>7</sup> Then the genealogy of Pūru is given commencing with his son Janamejaya.<sup>8</sup> Duṣyanta's son Bharata is a member of this line. Another descendant of this stock, Hasti, founded the city of Hastināpuram. A branch of this stock came to be known as the Nīpas who reigned from Kampilya. The dynasty which is now known as south Pāñcala dynasty came to an end with Ballāla's son.<sup>9</sup>

Passing on to the history of the Kurus, from Janamejaya, son of Parikṣit, the account is continued to the reign of Adhisīmākṛṣṇa when the Purāṇa is said to have been narrated.<sup>10</sup> From this medley of traditional history of the lunar and solar races the Purāṇa takes

<sup>1</sup> Ch. 99, 7-9.

<sup>2</sup> *Ibid.*, 62.

<sup>3</sup> Ch. 88, 87-190

<sup>7</sup> pp. 67-119.

<sup>9</sup> *Ibid.*, 174-182.

<sup>2</sup> Ch. 91, 54-8.

<sup>4</sup> Ch. 88, 167-9.

<sup>6</sup> See above p. 60.

<sup>8</sup> *Vāyu P.* 170-73

<sup>10</sup> *Ibid.*, 229-259.

us to the 'future' and begins to narrate the story of other ruling dynasties in a prophetic tone. These Pargiter calls the dynasties of the Kali Age.

The following is a categorical list of other ruling dynasties mentioned in the *Vāyu Purāṇa*. (1) The Pauravas from Adhisīmākṣṇā to Kṣemaka were twenty-five in number.<sup>1</sup> (2) The Aikṣvāku dynasty begins with Bṛhadratha and ends with Sumitra<sup>2</sup> consisting altogether of 31 kings. (3) The Māgadheyas commence with Somādhi who ruled at Girivraja, and ends with Ariñjaya. The reigning members of this dynasty were thirty-two and the duration of their respective reigns is also given.<sup>3</sup> Then the Pradyotas, the Śiśunāgas, the Nandas, the Mauryas, the Śuṅgas, the Kaṇvas (wrongly mentioned as Kaṇṭāyanas), and the Āndhras, and the Guptas are given,<sup>4</sup> followed by Śakas and other foreign and indigenous tribes which the *Purāṇa* styles as *mlecchas*. Some of these are mentioned by name: Ābhīras, Gardabhins, Yavanas, Tuṣāras, Maruṇḍas, Maunas, Vṛṣalas, Vaideśikas, Vāhnikas, Meghas, Naiṣadhas, and Nāgas.<sup>5</sup> Contemporaneous with the Gupta rule is mentioned the rule of Manidhanamjaya, Devarakṣita, Guha, and Kanaka. A description of the country at the commencement of the Gupta epoch is then furnished. Such condition is supposed to be that of the Kali era.

## SECTION XI

### DATE OF THE PURĀṆA

It will be interesting to turn our attention to fixing the probable date of the composition of the *Purāṇa* and see how far our study of the *Purāṇa* enables us to arrive at some definite conclusion. As has been already remarked, while some portions of the *Purāṇa* can go back to the 5th century B. C., other portions must have been added or revised at the end of the third or fourth centuries of the Christian era. The data furnished in the preceding pages and especially the section entitled *Religion and Philosophy of the Purāṇa* may lead us to postulate the theory that the *Purāṇa* may find a place among the earliest of the existing *Purāṇas*. In examining the date of the composition we have briefly to recall some statements already made.

1. The *Purāṇa* is the typical representative of the transformation from the old *Yoga* school to the *Advaita* school incorporating into it the salient features of both the *Yoga* and the *Sāṅkhya*. This metamorphosis took place, to

<sup>1</sup> Ch. 99, 270-282.

<sup>2</sup> *Ibid.*, 296-308.

<sup>3</sup> *Ibid.*, 280-92.

<sup>4</sup> *Ibid.*, 309-361.

<sup>5</sup> *Ibid.*, 362-395.

venture a conjecture, in the period of the *Upaniṣads* which may be dated roughly the 5th and the 4th centuries B. C. It may be noted in passing that the *Vāyu Purāṇa* does not preach exclusive worship of a particular deity.

2. The Purāṇa is an ardent advocate of the ancient *Yoga* theory inasmuch as its injunctions regarding the practice of *Yoga* can be traced back to the chalcolithic period of Indian History as evidenced by 'the *yatis* of the proto-historic and prehistoric Indus Valley' in sculptures.
3. The Purāṇa nowhere makes even an allusion to the religious sects Buddhism and Jainism which came to stay in the fourth century B.C., if not earlier.
4. The Purāṇa prescribes feeding of *Yogis* and ascetics for the *śrāddha* which has long fallen into disuse. The fact that the Purāṇa is full of it bears ample testimony to its antiquity.
5. In its recommendation of particular kinds of dancing accompanied by music to the ascetics as a means of attaining salvation, the Purāṇa is on a par with the *Yājñavalkya smṛiti* where similar prescriptions are found.<sup>1</sup> The late Gaṇapati Śāstri has justification to assign the law-book of Yājñavalkya to an epoch earlier than the *Kaṭṭalīya* for which the generally accepted date is the fourth century B. C.
6. The epic *Mahābhārata* and its supplement the *Harivaṃśa* definitely quote a *Vāyu Purāṇa*. The epic knows the existence of the *Vāyu Purāṇa* in an independent form.<sup>2</sup> This shows that the Purāṇa is much anterior to the didactic epic.
7. The artificial style of the Purāṇa recalls the language of the plays of the famous dramatist Bhāsa. The discoverer and editor of these plays assigned, on substantial grounds, fifth century B. C. for Bhāsa, which still holds the field, notwithstanding the controversy that has raged about it. The common feature of the plays and of the Purāṇa is the use of a large number of archaic (*ārṣa*) words such as *paśyate*, *paśyeta*, *gr̥hya*, *nāma ityuktaḥ*, *nāmmāsi-ityuktaḥ*, *siṃhavāhinī*, *āptoryāmānām* etc. Besides, there are a large number of grammatical irregularities and these suggest a period when the canons of the grammatical treatise were still in the making. This points to another circumstance that the Purāṇa was not very much tampered with.

<sup>1</sup> *Vāyu*, ch. 87, 34 and *Yāj.* III, 11.

<sup>2</sup> III, 194, 15.

8. The reference to Vyākaraṇa, Bhāṣya, and Dharmaśāstra in a single line does not help us much in our enquiry. That and the succeeding stanzas of the Purāṇa are an interpolation. This is a copy of the more elaborate rules laid down in the *Mahābhārata*. The omission of these portions does not affect the sense nor the continuity of the Purāṇa in the least.
9. There is no reference in this Purāṇa to the *Tantric* system of worship which consists of Devī being regarded as Śakti. Though we do not know for certain when this particular form of worship came into being we know this for certain that it was not popularly prevalent in the age when the *Vāyu Purāṇa* was composed.<sup>1</sup>
10. According to its own version in the later chapters dealing with royal dynasties the scene of the Purāṇa is laid in the reign of the Paurava King Adhisīmakṛṣṇa<sup>2</sup> who is supposed to have lived before the commencement of the Kali age. His contemporaries are Senajit of Magadha and Dīvākara of the Aikṣvāka dynasty.<sup>3</sup> According to Prof. Rapson the genealogy assigned to him indicates a more definite date; for 'of his immediate forbears Aśvamedhadatta, Śatānīka, Janamejaya, Parīkṣit all but the first, his father Aśvamedhadatta, are no doubt to be identified with kings of the same names who appear in the *Brāhmaṇas*.'<sup>4</sup> Therefore we have to look for a date prior to 1110 B. C. for Adhisīmakṛṣṇa. Not only is this king mentioned but also his contemporaries by the significant term *sāṃpratam* in these places under reference. From this we cannot imagine that the Purāṇa was composed as early as 1100 B. C. First, the historicity of these personages must be proved on more substantial evidence. Secondly, some of the Vedic compositions which the Purāṇa cites are much later and consequently the Purāṇa must be later. It may be that a particular teacher narrated the ancient Purāṇa when Adhisīmakṛṣṇa was ruling. The same version was continued in much later times when it was reduced to writing. In other words, the old materials handed down by oral tradition were allowed to exist as they were.

<sup>1</sup> For an outline of the history of the *Tantras*, see Farquhar *Religious Literature of India*, p. 199 ff.

<sup>2</sup> Ch. 99, 258-9 and 270.

<sup>3</sup> See C. H. I. Vol. I., p. 302; Pradhan, *Chronology of Ancient India*, p. 254, Pargiter, *Ancient Historical Tradition*, p. 182.

<sup>4</sup> *Ibid.*, Vol. I.

11. The portions dealing with dynasties of the Kali Age take us to the reign of Candragupta I of the Gupta dynasty and give an elaborate description of the period 320–330 A.D. It also gives the names of contemporary monarchs. The reference to the Huns who invaded India in the fifth century A. D., shows that the last revision of the Purāṇa ended somewhere about 500 A.D. At the least the lower limit cannot be later than 625 A.D., when Bāṇa in his historical romance, the *Harṣa Carita*, definitely stated that he attended a *Vāyu Purāṇa* reading in his village by a *pustakavācaka*, Sudrṣṭi by name. [Gītya Pavamāna proktam Purāṇam papāṭa.]

If the Purāṇa has become so popular then we have to conclude that it attained celebrity in a much earlier period.

12. According to the astronomical data the Purāṇa may be placed at a period between B. C. 204 and A.D. 44.<sup>1</sup>

The foregoing results may be summarised. Inasmuch as there are almost *verbatim* quotations from the *Upaniṣads* the upper chronological limit will be somewhere about the 5th century B. C., the period immediately succeeding the epoch of the early *Upaniṣads*. Also the lower limit can be fixed about 600 A.D., as the *Harṣa Carita* knows it fairly full. From this we have to infer that the Purāṇa compilation extended over a number of centuries. Most of the portions were reduced to writing about the fifth and fourth centuries before Christ, and other portions were added now and then until it reached its present form somewhere between 350 and 500 A.D.

## SECTION XII

### GENERAL REMARKS AND CONCLUSION

A study of the Purāṇa and a survey of its contents lead us on to the conclusion, to advert to what has already been said, that this Purāṇa can be recognised as one of the earliest of the existing Purāṇas. The merits of the Purāṇa to warrant this conclusion are a cosmopolitan view of religion and philosophy, few portions of which can be definitely marked sectarian, a detailed description of cosmogonical parts, fewer legends and more facts. The remarks of Prof. Wilson are here apposite: 'There is altogether a copiousness and consistency of system which is not common in the Purāṇas. One feels an air of originality and antiquity about it, not perceptible in others.'

<sup>1</sup> See above sec. ix.

Reference has already been made as to the typical prologue furnished by this Purāṇa as also on the valuable astronomical data. Mention was also made of the theology of the Purāṇa more agreeing with the school of the Vedānta, but not failing to omit the principles and practice of the Yoga school, thus pointing out to the revival of the Yoga period represented by the Yatis of the Pre-Rig-Vedic and early Rig-Vedic period. The Purāṇa soars high in the realm of an extreme form of the *advaita* where the Supreme Being is treated as *Nirguṇa* or void of attributes.<sup>1</sup>

As was pointed out, the Purāṇa does not sacrifice Karma at the altar of Yoga. It makes us understand that Karma is the ladder to attain the top flat of Yoga. Then one can understand why the Purāṇa lays so much stress on the *śrāddhas* and frequentings of sacred *tīrthas* or places of pilgrimage. The rituals laid down are in the manner of the followers of the various schools of the Rig Veda, especially the Āśvalāyana section. The several chapters then on the *śrāddhakalpa*, (in all twelve), with elaborate details as to their technique and form, indicate that the compiler of the section was a Rig Vedin. It may be remembered that even today we maintain this distinction of the three Vedas. Either one is a Rig Vedin, Yajur Vedin or a Sāma Vedin though a *dvija* is expected to study all the three Vedas.

In the same way the chapters on places of pilgrimage are not without interest. They tell us of the geography of the land—the names of cities, hills and rivers, lakes, temples, caves, then existing or known to exist. For example the following names among others occur. Rivers: Tāmraparṇi, Kāveri, Amarāvati, Ganges, Sindhu. Towns: Gokarṇa, Prabhāsa, Kurukṣetra, Prayāga, Kalāñjara, Vāraṇasi and Gayā—(Ch. 77). To pass on, the relevant portions dealing with the historical period of Indian history as noticed in the preceding pages, are too valuable to be ignored. An attempt has been made to compare the different lists and to reconstruct a continuous history of the different dynasties, major and minor, and it must be said to the credit of Pargiter that it has proved fruitful.<sup>2</sup>

No doubt the lists contain a mere catalogue of names with the respective lengths of each member of one dynasty after the other. There are indeed very few details with particular reference to the events of each period, which is indeed a regrettable defect. Fortunately for us, independent sources such as the Buddhist books, the *Kauṭaliya Arthaśāstra* and other literary sources, the inscriptions of Aśoka, Puṣyamitra and others corroborate the account contained in

<sup>1</sup> Ch. 20-31.

<sup>2</sup> See for lists *The Dynasties of the Kali Age*.

the Purāṇa, and credit the latter with genuineness and reliability. It sets forth a fairly good description of the Gupta rule at the commencement. The power of the Andhras has declined. Foreign dynasties of Śakas and other tribes have established kingdoms. No outstanding personality is on the scene. A century of dark period sets in. The good people resort to hills and caves to find safe and secure abodes. A number of kings set up independent states and encroached on their neighbour's territory.<sup>1</sup>

Though it can be said without any fear of contradiction that much of the material contained in the Purāṇa is original and deserves our careful scrutiny, still we must proceed in this examination of the materials with caution and discrimination and in a purely scientific spirit. If we attack the various topics recurring in the Purāṇa with a historical and scientific eye then we can be sure of fair and fairer results. Among others the etymological interpretation of various proper names such as Vyāsa,<sup>2</sup> Sūta,<sup>3</sup> Rudra,<sup>4</sup> is important but is unfortunately interspersed with fiction. The etymological interpretation is specially mentioned here as it throws a flood of light on the names which are otherwise mystic, mysterious and inexplicable. Of these we shall take for examination here Vyāsa, and conclude this essay.

Orthodox tradition has attributed all along to the same Vyāsa the division of the Vedas and the compilation of Itihāsas and all Purāṇas, perhaps including the very late Upapurāṇas. The etymology of the term means arranger or compiler, meaning thereby a general editor for various works. The works were there in a disorderly and ill-assorted fashion, and it was given to the wisest of the individuals to arrange them in proper form. Whoever arranged such mutilated texts and recovered them from oblivion went by the title of Vyāsa so far that particular work was concerned. But latter tradition knew well of one prominent figure Vyāsa, the son of Parāśara, and, by sheer confusion, attributed all the different Vyāsas' works to one Vyāsa. That a number of Vyāsas were even then distinguished and recognized, and that the term is only a generic title, are evident from the Purāṇa itself. In chapter (23) *Māheśvarāvatāra yoga*, twenty-eight *yugas* are distinguished from Vaivasvata Manu to Kṛṣṇa, and for every *yuga* there was a Vyāsa who went by the different names such as Vasiṣṭha, Bharadvāja, Parāśara, etc. The Vyāsa of the twenty-eighth *yuga* is said to be Kṛṣṇadvaipāyana, the son of Parāśara.<sup>5</sup> Thus there was a group or a class of Vyāsas who bore various titles in various *yugas*, and who perhaps were

<sup>1</sup> Ch. 99, 383 ff.

<sup>4</sup> 9, 80.

<sup>2</sup> 77-75.

<sup>5</sup> *Ibid.*, 205.

I, 28.

responsible in their own way to editing and collating corrupted texts of the sacred books. Thus the Purāṇa contains many such valuable information, which if tackled in the right spirit, will shed much light on otherwise inexplicable problems and factors in the history of Ancient India. From the historical point of view this Purāṇa, as others, can remove the chronological difficulties of the history of Northern India during some centuries preceding and following the Christian era. The more do we exploit them, the more are we introduced to the culture and civilisation of Ancient India.

## THE SUVARNASAPTATI

(Continued from Vol. IV, No. 1.)

*XLIII. The three states of being are the state acquired by goodness, the state acquired by Nature, and the state acquired by a product. One has seen that they depend on the internal organs ; those which depend on the subtle (body) are the kalala and the others.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

*'The three states of being are the state acquired by goodness . . . . .*  
The three states of being comprehend all the objects. All the objects are of three sorts : (1) what is acquired by goodness ; (2) what is acquired by Nature ; (3) what is acquired by a product. *'Acquired by goodness :*' that was the case with the ṛṣi Kapila, who possessed the four faculties from his birth. These four faculties are : (1) virtue ; (2) knowledge ; (3) absence of passion ; (4) power. As it is by goodness that one obtains these four faculties, one calls them the faculties acquired by the good (done in a prior existence). What does *'acquired by Nature'* mean ? As is said in the Vedas, the Lord Brahmā had of yore four sons : (1) Sanaka ; (2) Sanandana ; (3) Sanātana ; (4) Santakumāra. These four sons, furnished with organs and their functions<sup>1</sup>, had spontaneously, at the age of sixteen years, the four faculties all present : virtue, knowledge, absence of passion and power. As in the case of a man who finds a treasure unexpectedly, the four conditions cannot be obtained by one cause ; that is why one calls them *'obtained by Nature'*. *'Acquired by a product'*. The corporeal form of a master is called a product. Because it is the corporeal form of the master, the disciple approaches it with respect, listens to it and acquires knowledge therefrom ; by knowledge, one acquires absence of passion ; by absence of passion, virtue ; by virtue, the eight-fold power. Thus the four faculties are obtained by the corporeal form of the master ; that is why one says

<sup>1</sup> I do not see quite well what Paramārtha wishes to say by the phrase . . . . [rendered as : 'furnished with organs and their functions']. It ought, however, to translate a phrase parallel to this, found in the corresponding passage of Gauḍapāda : teṣām utpannakāryakāraṇānām śarīrīṇām ṣoḍaśvarṣāṇām ete bhāvās catvāraḥ samutpannāḥ. [M. Takakusu shows that the components of the Chinese phrase used by Paramārtha correspond to the components of the above citation from Gauḍapāda. Cf. also Māthhāra : teṣām utpannakāryakāraṇānām śarīravatām ṣoḍaśavarṣāṇām evai 'te catvāro bhāvā akasmād evo 'tpannā].

that they are acquired by a product. These four faculties exercise their influence on the internal organs, the Mahat and the others, and they produce migration through existences. There are the four faculties and their contraries, eight in all. Where do these eight categories live? Reply :

‘ *One has seen that they depend on the internal organs*’. The internal organs are the Mahat and the others. Mahat possesses the eight faculties, that is to say, the four faculties produced by dharma and four produced by adharma live in the Intellect, as has been said higher up (v. XXIII): ‘ The determinative Intellect, that is Mahat ; virtue, knowledge, absence of passion and power are its characteristics, where it is affected by *sattva*. Their opposites (are its characteristics) where it is affected by *tamas*.’ These eight sorts of conditions can be realised by the internal organs, and since these eight categories can be seen by a sage endowed with divine vision, one says ‘ One has seen . . . .’

‘ *Those which depend on the subtle body are the kalala and the others.*’ Eight stages are spoken of : (1) kalala ; (2) arbuda ; (3) peśī ; (4) ghana ; (5) infancy ; (6) adolescence ; (7) youth ; (8) old age. These eight stages are nourished by the four sorts of food ; (1) the four stages (of the embryo) are nourished by the six sorts of food and drink absorbed by the mother ; (2) infancy, by the milk of the mother ; (3) adolescence, by the nourishment one procures it ; (4) youth and old age, by independent absorption of nourishment. These eight stages owe their existence to the subtle body. The sixteen categories (dharma, 4 ; adharma, 4 ; kalala—old age, 8) influence the internal organs and cause migration through existences. One may ask : ‘ You have declared higher up (v. XLII) that, by reason of the cause and the consequence, the subtle body takes on varied forms, like a dramatic actor. What are “ the cause ” and “ that which depends on the cause ” (the consequence) ? ’ We reply in these lines :

*XLIV. By virtue one mounts to heaven, by vice one descends into the lower regions. By knowledge and aversion one gains final Deliverance ; bondage by their contrary.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

‘ *By virtue . . .*’ If in the world a man practises goodness, *yama* and *niyama* (v. XXIII) his subtle body will mount on high, in such a way that at a (fresh) birth, it will be re-born in one of the eight regions, that is to say, as (1) Brahmā ; (2) master of the world (prajāpati) ; (3) god ; (4) gandharva ; (5) yakṣa ; (6) rākṣasa ;

(7) yamarāja; or (8) demon.<sup>1</sup> These eight regions can be gained by virtue. But if one practises the contrary of the ten good actions (*yama* and *niyama*), that is to say, if one gives oneself up to vice, the subtle body descends into the lower regions and is re-born in one of the five regions, that is to say, as (1) quadruped; (2) bird; (3) serpent; (4) amphibian;<sup>2</sup> or (5) being without movement (the vegetable and mineral kingdom). The five regions are the product of vice.

‘*By knowledge and aversion, one gains final Deliverance.*’ By the subtle body one gains knowledge, by knowledge aversion (for transmigration); because of the aversion the subtle body is abandoned and the true Self (Spirit) remains isolated. That is what one calls ‘*final Deliverance.*’

‘*Bondage, by their contrary.*’. The contrary of knowledge is called ignorance. Thus, a man says: ‘I am to be pitied’, or: ‘I am lovable’; when he says: ‘I am lovable,’ that is the effect of the Sentiment of self. That is what one calls ‘ignorance’. That ignorance enchains the body and obliges it to remain among men, gods or animals. This bondage is of three sorts: (1) bondage by Nature; (2) bondage by a product; (3) bondage by sacrificial gift. These three modes will be explained lower down (v. XLV). It is said (v. XLIII) ‘by reason of the cause and the consequence’. Good actions are considered as being the cause and birth in the higher regions as the consequence; evil actions are the cause, and descent to the lower regions the consequence. Even so, knowledge and aversion being the cause, final Deliverance is the consequence; ignorance and attachment being the cause, bondage is the consequence. By the side of these four causes and the four consequences that we have just explained, there are four other causes and consequences; we pass on to expound them:—

*XLV. Because of the absence of passion, there is absorption in Nature; because of passion tainted by rajas, there is birth and death. Where there is power, there is absence of obstacle; where there is the contrary, there are obstacles.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

‘*Because of the absence of passion, there is absorption in Nature.*’— Suppose a brāhmin who leaves his family, studies the path, controls his eleven organs, rejects the eleven objects (of sense and of action)

<sup>1</sup> Nos. 3 and 7 differ in Gaudapāda; god (*deva*) is probably for *devānām Indra* (see v. LIII,) commentary. [Mādhara agrees with Gaudapāda except for reading ‘pitryam’ in the place of ‘saumyam’, both possibly meaning the same, since the fathers belong to somaloka; both of them read ‘aindram’ thus supporting M. Takakusu’s conjecture about the meaning of ‘deva’.]

<sup>2</sup> See v. XXXIX, commentary.

and observes the ten laws of *yama* and *niyama*; he will be filled with aversion (for the world); by the aversion he will deliver himself of passion; but, not having knowledge of the twenty-five truths, he does not attain final Deliverance. When he dies, he will be resolved into the eight elements (of Nature): Nature, the Intellect, the Sentiment of self, and the five subtle elements. By the resolution into the eight elements of Nature, he does not attain Deliverance, though he may imagine himself to attain it. For, later, at the moment of transmigration, that man receives a-fresh a gross body in the three worlds. That is why one says that because of aversion (for the world), one is resolved into Nature. That is 'bondage by Nature'.

'Because of passion tainted by *rajas*, there is birth and death.'—'Passion tainted by *rajas*'. Suppose a man who thinks thus: 'I have made great gifts, I have celebrated great sacrifices, I have served the gods and I have given *soma* to drink; I shall be happy in the future world.' By the desire tainted by *rajas* he will submit to a new birth in the region of Brahmā . . . or among the animals. That is 'bondage by sacrificial gift'.

'By power there is absence of obstacle.'—'Power'; there are eight kinds (of powers) endowed with *rajas*: minuteness, lightness etc. Because of power, there are eight kinds of absence of obstacles in the world of the king Brahmā. The eight-fold power is associated with the Intellect; that is why one speaks in this case [of] *bondage by a product*'.

'When there is the contrary, there are obstacles'.—The contrary of power is impotence. Because of the impotence there are obstacles everywhere. Those obstacles too are a 'bondage by the product,' for they pertain also to the category of *tamas*.—This verse explains then the four causes and consequences. The absence of passion is called the cause and absorption in Nature the consequence; passion endowed with *rajas* is the cause, birth and death the consequence; power is the cause, absence of obstacle the consequence; impotence is the cause, obstacles the consequence.

One has then explained the sixteen products: the eight causes and the eight consequences. One may ask: 'As for the sixteen kinds of creation from causes and consequences, what are their constitutive elements?' We reply in these lines:

XLVI. *Creation derives in its Nature from the Intellect; it is (of four sorts): doubt,<sup>1</sup> incapacity, contentment and perfection. Considering the disparity of the *gunas*, there are fifty divisions in the Intellect.*

<sup>1</sup> 'Doubt', but as the Sanskrit has 'viparyaya' it is perhaps necessary to read 'obstacle'; Gauḍapāda interprets, however, (as) 'saṁśaya.'

*eṣa pratyayasargo<sup>1</sup> viparyayāśaktituṣṭisiddhyākhyah |*  
*guṇavaiṣamyavimardāt<sup>2</sup> tasya ca bhedās tu pañcāśat ||*

*Commentary.*

‘Creation derives in its nature from the Intellect’.—Creation is (the aggregate) be it of the sixteen (causes and consequences), be it of eight consequences. The sixteen—the eight causes and the eight consequences—have the Intellect as the common base. The eight consequences are called the ‘creation’; in this case, the eight causes are the base. That is why it is said that the sixteen kinds of creation have the Intellect as base. It has been said higher up (v. XXIII.): ‘The determinative Intellect, that is Mahat; virtue, knowledge, absence of passion and power are its characteristics, when it is affected by *sattva*. The opposites (are its characteristics), when it is affected by *tamas*.’

*It is of four sorts : doubt, incapacity, contentment and perfection.—*

‘The sixteen kinds of creation are further divided into four categories : (1) doubt ; (2) incapacity ; (3) contentment ; (4) perfection. Here is an example : A brāhmin, with his four disciples, returns from a great kingdom in his country. On the way, before the rise of the sun, one of the disciples says to the master, ‘Great master : I see an object on the way ; I do not know if it is a post or a man having evil intentions.’ This disciple has doubt on the subject of the post. The master says to the second disciple : ‘Go to assure yourself if it is a man or a post.’ This disciple, according to the words

<sup>1</sup> *Pratyayasarga*, ‘intellectual creation’ ; *pratyaya* signifies ‘notion’ and *pratyayasarga* is ‘creation of which one has only a notion’ as opposed to the *bhūtasarga* ‘the organic creation’ that we perceive by our senses. Intellectual creation is of sixteen kinds :

*Causes.*

*Consequences.*

POSITIVE.

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| 1 virtue (dharma) ;                | 1 elevation (gamanam ūrdhvam) ;   |
| 2 knowledge (jñānam) ;             | 2 deliverance (mokṣa) ;           |
| 3 absence of passion (vairāgyam) ; | 3 absorption (prakṛtilaya) ;      |
| 4 power (aiśvaryam) ;              | 4 absence of obstacle (avighāta). |

NEGATIVE.

- |                              |                                     |
|------------------------------|-------------------------------------|
| 5 vice (adharma) ;           | 5 degradation (gamanam adha-stāt) ; |
| 6 ignorance (ajñānam) ;      | 6 bondage (bandha) ;                |
| 7 passion (avairāgyam) ;     | 7 transmigration (saṃsāra) ;        |
| 8 impotence (anaishvāryam) ; | 8 obstacles (vighāta).              |

The Chinese text seems to admit of two interpretations of *pratyayasarga* ; (1) the sixteen creations in their totality ; (2) the eight creations of the consequence. In both cases, the Intellect is their base or their nature. This verse is not easy to comprehend.

<sup>2</sup> *Vimardāt* is rendered by Mr. Davies : ‘out of hostile influence’ ; and by Mr. Garbe : ‘since the guṇas find themselves against their dissimilarity.’

Paramārtha has : ‘considering the disparity of the guṇas.’ It seems that in his text he may have had a variant, perhaps *vimarśāt*, ‘by the consideration of’ ; Gauḍapāda gives no clear explanation.

of the master, looks from afar, but does not go near, and says to his master : 'Great master, I am incapable of going near.' This second disciple is *incapable*. Then (the master) addresses himself to the third disciple : 'Go to see with care what that is.' The disciple looks at it and says : 'Great master, of what good is it to examine it now ? At the rise of the sun a great caravan<sup>1</sup> will pass by here, to which we can attach ourselves.' This third one, though he be not still sure if it is a man or a post, does not worry about it (*contentment*). Then the master addresses himself to the fourth disciple : 'Go to examine the thing.' This one, who has a good vision, sees a liana embracing that object and some birds perching on it ; he approaches it, touches it with his foot and returning towards his master, says to him : 'Great master, that object is a post.' The fourth disciple has then attained *perfection*.<sup>2</sup> The sixteen kinds of creation are thus grouped in four classes.

'*Considering the disparity of the guṇas*'.—There are three *guṇas* : *sattva*, *rajas*, *tamas*. They exclude one another ; if *sattva* predominates, *rajas* and *tamas* are hidden ; just as the rays of the sun hide the stars, fire etc.; and so too for *rajas* and *tamas*. Considering the disparity of the three *guṇas*, it is necessary to recognise fifty divisions of the Intellect. We pass on to explain these fifty divisions :

*XLVII. There are five sorts of doubt and error and twenty-eight sorts of incapacity, because of the imperfection of the organs. Contentment is divided into nine, perfection into eight.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

'*There are five sorts of doubt and error.*' 'Doubt and error' have been explained higher up (v. XLVI). We now pass on to explain these five divisions. They are : (1) darkness (*tamas*) ; (2) stupidity (*moha*) ; (3) great stupidity (*mahāmoha*) ; (4) profound darkness (*tāmisra*) ; (5) blind darkness (*andhatāmisra*). Before explaining *incapacity*, we pass first to examine the five sorts of doubt :

*XLVIII. Darknnesses are considered as divided into eight kinds, stupidity into eight and great stupidity into ten, profound darknnesses are divided into eighteen, even so the blind darknnesses.*

<sup>1</sup> The text has \* \* \* ; that might signify 'a crowd of adherents of one sect' ; my translation is hypothetical.

<sup>2</sup> This parable is given by Alberuni, I, 84. See also Garbe, *Sāṃkhya-philosophie*, p. 65. It appears higher up, v. XXX, even as in Gauḍapāda. See my Introduction.

## SANSKRIT KĀRIKĀ.

*Commentary.*

‘*Darknesses are considered as divided into eight kinds.*’ If a man attains absence of passion without having knowledge, he is absorbed in the eight primary elements, that is to say, Intellect, the Sentiment of self, the Manas and the five subtle elements. Though not having attained final Deliverance, that man thinks to have attained it, because he does not see the eight kinds of bondage. Not to see these eight kinds, that is what is called ‘darkness’. ‘Darkness’ is the synonym of ignorance.

‘*Stupidity into eight.*’ We have explained higher up (v. XXIII) that power is of eight sorts. To these eight, gods etc. are bound by attachment and cannot attain final Deliverance; being bound by attachment to their power, they migrate through existences. That is why one says that stupidity is of eight kinds. The first eight (that is to say, the kinds of darkness) are called ‘bondage by Nature,’ and the last eight (that is to say, those of stupidity) ‘bondage by a product’.

‘*Great stupidity into ten*’. There are five subtle elements which are endowed with *sattva* and which serve as objects to the gods. The five (subtle) objects are associated with the five gross elements (which are the objects of men and animals, and which are) endowed with the three *gunas*. It is to these ten objects that Brahmā, men, animals, etc. are bound by attachment; and they feel that there are not better objects beyond them. Because of that attachment, one realises neither knowledge nor the law of final Deliverance; one does only attach oneself to the objects, without seeking final Deliverance. That is whence comes the name of ‘great stupidity’.

‘*Profound darknesses are divided into eighteen.*’ When the eight kinds of power and the ten objects fall into decadence, the poor man thinks thus: ‘I am now poor, without power, and I have lost all the objects (in my power).’ Thinking thus, he experiences eighteen kinds of misery. These miseries are called ‘profound darkness.’

‘*Even so, the blind darknesses*’. As has been said higher up, power is divided into eight kinds, and objects into ten. A man who possesses these eighteen kinds will think thus at the moment of his death: ‘I have lost now the eight-fold power and the ten objects (of perception and action). The messengers from Hell come to bind me and hurry me near the king Yama.’ Thinking thus, he experiences misery and he is incapable of listening to the doctrines of the Sāṃkhya. That is whence comes the appellation ‘blind darkness’.

Thus, the five kinds (of doubt) are sub-divided a-fresh into sixty-two kinds. We now pass on to explain the divisions of incapacity :

*XLIX. Destruction of the eleven organs and lesion of the Intellect are called 'incapacities'. Lesion of the Intellect is of seventeen kinds, by opposition to contentment (= 9) and to perfection (= 8).*

### SANSKRIT KĀRIKĀ.

#### Commentary.

'*Destruction of the eleven organs*'. This means : deafness, blindness, loss of the olfactory organs, loss of the organ of taste, paralysis, insanity, aphasia, mutilation, infirmity, the state of a eunuch, constipation; these are the defects of the eleven organs. Why does one call that 'incapacity'? Because (where one is afflicted with these defects), one cannot hear . . . and one cannot attain final Deliverance. Thus, a deaf man—and, if you wish, give him another malady too—consults his good friend : 'I am miserable; what ought I to do?' The good friend tells him : 'Acquire the knowledge which the Sāṃkhya gives and thou wilt attain the exhaustion of misery, the shore of misery; thou wilt be delivered.' The man replies : 'I am incapable of acquiring the knowledge which the Sāṃkhya gives, for I shall not hear the words of the master; not hearing him speak, whence will knowledge come to me?' The case is the same for the blind and the others. Because of the destruction of the organs, they are not capable of acquiring knowledge; by that, they are incapable of attaining Deliverance.

'*Lesion of the Intellect is called incapacity.*' The seventeen kinds of lesion of the Intellect come to be explained ultimately.

'*By opposition to contentment and to perfection.*' These are the opposites of the nine divisions of contentment and the eight divisions of perfection, which are the lesions of Intellect. The eleven defects of the organs and the seventeen lesions of the Intellect are called the twenty-eight (incapacities). What are the nine divisions of contentment? We pass on to explain that in this verse :

*L. There are four sorts of internal contentment : those connected with Nature, with the necessities,<sup>1</sup> with time, and with destiny.<sup>2</sup> The external contentments are to the number of five, because they result from the renunciation of objects. In all, there are nine (contentments).*

### SANSKRIT KĀRIKĀ.

#### Commentary.

'*There are four sorts of internal contentments.*' 'Internal', because the four contentments are produced in the Intellect, the Sentiment of

<sup>1</sup> . . . 'to take', 'what ought to be taken', 'needs', 'the necessary' (upādāna).

<sup>2</sup> 'influence', 'the fruit of acts committed in prior existence' (bhāgya).

self and the Manas : contentment (1) relating to Nature ; (2) relating to needs ; (3) relating to time ; (4) relating to destiny. To make clear the four contentments, we give the following parable. Some brāhmins have renounced the world and left their families. Some one asks one of them : ' What knowledge have you, thanks to which, you have been able to renounce your family ? ' He replies : ' I know that Nature is the real cause of the three worlds and that is why I have become an ascetic.' This man knows only that Nature is the cause, but he does not know permanence and impermanence, knowledge and ignorance, possession of *guṇas* and lack of *guṇas*, universality and non-universality (of the twenty-five principles). Knowing only existence and its cause, he is content. Such a man does not attain Deliverance. One asks of the second brāhmin : ' What knowledge have you, thanks to which, you have been able to become an ascetic ? ' He replies : ' I know that Nature is the cause of the worlds and that the needs are the cause of Deliverance. Though Nature be the real cause, one does not attain Deliverance without the "necessaries" ; that is why I am provided with the necessary (objects). The "necessaries" are the objects of which the ascetics have need when they acquit themselves of their religious tasks. They are to the number of four : (1) the triple staff (*tridaṇḍa*) ; (2) the pot of water to wash (*kamaṇḍalu*) ; (3) the *kāṣāya* ; (4) the five beneficent (*maṅgala*) objects ; (a) the pouch of ashes ; (b) the solar crystal (perhaps, *sūryakānta*) ; (c) the sacred thread ; (d) the charms (magical words) ; (e) a long stalk of herb placed on the tuft of hair and called the beneficent herb (auspicious herb, *kuśa*). Those are the five objects necessary for the study of the way. They are called the beneficent objects, because they drive away impurity. With the three other objects, they form the eight necessary (objects). They make us attain Deliverance, and that is why I have left my family.' That is why the second contentment is called ' the contentment of the necessary.' For that reason (our man) is not capable of attaining Deliverance, for he knows only that Nature is the cause and does not know the rest. One asks of the third brāhmin : ' What is the knowledge on account of which you have become an ascetic ? ' He replies : ' What can Nature and the necessities do ? I know that they cannot procure Deliverance (and I think that it will come with time). That is why I have desired to become an ascetic.' This third brāhmin cannot attain Deliverance any more [than the others]. Why ? Because he is ignorant of the sense of the twenty-five categories (*padārthas*). That is ' the contentment relating to time.' The same question is put to the fourth brāhmin ; he replies : ' Nature, the necessities or time avail nothing ; it is only by destiny (that one is delivered). I know that one is delivered because of destiny, and that

is why I have become an ascetic.' No more has this man the knowledge; in consequence, he does not attain Deliverance. That is 'the contentment relating to destiny.' These four contentments are produced within [us].

'*The external contentments are to the number of five, because they result from the renunciation of objects.*' External contentment is of five kinds, according to the renunciation of the five objects. For example, a man seeing five brāhmins renounce their families, asks first of the first: 'What is the knowledge on account of which you have become an ascetic?' That man replies: 'In the world, there are five objects (of sense). All the occupations to acquire the objects (ārjana) are difficult to practise: tillage (kṛṣi), the business of a shepherd (pāśupatyā), service of the king (sevā), commerce (vāṇijyā); besides these occupations one may practise theft;<sup>1</sup> but this mode of acquiring objects cannot be practised, because it injures him who does it and others. Seeing these facts, I have thought to become an ascetic.' This fifth (counting the four of the preceding example) person will not attain Deliverance, because he has not true knowledge. One asks of the second: 'What law do you know on account of which etc.?' He replies: 'I know that one can acquire objects only if one looks for them. But when one has acquired the objects by means of tillage etc., then protection (rakṣaṇa) is difficult. Why? Because the five sorts of occupations are in conflict one with another. In protecting the acquired objects, one exposes oneself to injury to oneself and to others. Seeing that that protection gives birth to misery, I have renounced the acquired objects and I have become an ascetic.' No more does the sixth person attain Deliverance, because he does not have the true knowledge. Then the same question is put to the third, and he replies: 'I have been able to seek and obtain what I had not obtained; what I had obtained, I have protected it, in order not to lose it. But I have seen that the five objects, by the very fact that one enjoys them, diminish; when they diminish, one experiences a great misery therefrom. Seeing that they imply that fault of diminution (kṣaya), I have thought to become an ascetic.' No more will the third one attain Deliverance, because he does not have the true knowledge. The same question is put to the fourth. He replies: 'I have found the objects; those which I have not, I can obtain them; what I have obtained, I can protect it; what I have lost by diminution, I can find it a-fresh. Why have I become an ascetic? Because the five organs of sense are never satisfied and because they seek without cessation something better. Seeing that they imply this defect, I have sought to become an ascetic.' No more will this fourth one be delivered,

<sup>1</sup> Gauḍapāda has only *parigraha*, 'accepting alms'.

because he has not the true knowledge. Finally, the same question is addressed to the fifth, and he replies : ' I sought, I obtained, I preserved without loss ; if there was loss, I sought the object a-fresh ; I sought the better, and I obtained it. Why have I become an ascetic ? Because the four (permitted) occupations by which one acquires the objects can injure others. If one does not injure others, one has no success in one's business. Tiller, he should cut the herbs and the trees ; soldier, he should kill men ; thief, he should cause loss to others ; (merchant), he should lie. These evils and all the others from which the world suffers proceed from (the acquisition of) objects. Seeing that they imply that fault, I have sought to become an ascetic.' No more will the fifth one attain Deliverance, because he has only external aversion and he has not the true knowledge.

The four first [mentioned] sorts of contentment come from within the five others come from without ; there are nine in all. To these nine sorts of contentment, the Sages have given nine names. As they are capable of clearing the dust and the impurity, the epithets of water are given to the nine contentments : (1) lubricating water ; (2) moving water ; (3) running water ; (4) lake-water ; (5) water [which has] well penetrated ; (6) water easy to cross ; (7) water which gushes well ; (8) transparent water ; (9) excellent and pure water.<sup>1</sup> The opposites of the nine kinds of contentment form the nine kinds of incapacity, to wit : non-lubricating water . . . up to : water [which is] not excellent and pure.

One may ask : ' The three categories (doubt, incapacity, contentment) differ from perfection. What is that last category ? ' We reply in this verse :

*LI. Reasoning, hearing, reading, the three modes of preventing misery, what one obtains from friends and the effects of gifts, those are the eight kinds of perfection. The three first-mentioned acts are the curbs to perfection.*

<sup>1</sup> Here are those which are the names in Gaudapāda : (1) ambhas ; (2) salilam ; (3) ogha ; (4) vṛṣṭi ; (5) sutamas ; (6) pāram ; (7) sunetram ; (8) nārīkam ; (9) anuttamāmbhasikam. Fujii, the Japanese commentator, gives the following explanation : (1) ' lubricating water,' because *Nature* penetrates all, as water lubricates all ; (2) ' moving,' because by the *necessary* objects one purifies oneself as water which is moving and of little depth purifies all ; (3) ' running,' because with *time* a river joins the ocean ; (4) ' lake-water,' because the *influence* of the acts committed in other existences is like the water of the lake which the rain refills ; (5) ' well penetrated,' because one renounces the *acquisition* of riches, as a desiccated ground is irrigated by water ; (6) ' easily crossed' because one has not to occupy oneself any more with *protecting*, as [in the case of a piece of] water that has been crossed ; (7) ' which gushes well,' for there is nothing to fear the *loss* of, like water which gushes without ceasing ; (8) ' transparent,' for there is no more *attachment* ; (9) ' excellent and pure,' for not to *injure* others is like water of the purest and most excellent quality.

## SANSKRIT KĀRIKĀ.

*Commentary.*

'Reasoning, hearing, reading . . . the effects of gifts, those are the eight kinds of perfection.' These are the eight sorts of capacity by which one may accomplish the six practices (for which, see lower down 'the six sorts of contemplation'). Thus, a brāhmin, becoming an ascetic and following the path, thinks thus: 'What is it that is excellent? What is it that is true? Which is the final conclusion? By what practices does one attain the knowledge which manifests (the objects)?' Having reflected thus, he attains the knowledge; in him arises the knowledge of the twenty-five truths: Nature is different (from the other principles), the Intellect, the Sentiment of self, the five subtle elements, the eleven organs, the five gross elements are different one from another, and the true (paramātmā) is itself different from all the others. Because of that knowledge the six kinds of contemplation are born: (1) the contemplation of the defects of the five gross elements; in observing their defects, aversion is produced and one renounces these elements; this stage is called '*reasoning*'. (2) The contemplation of the defects of the eleven organs; when one sees their defects, aversion is produced and one renounces the organs; this stage is called '*holding*'. (3) The contemplation of the defects of the subtle elements: when one sees their defects, aversion is produced and one renounces the five subtle elements; this stage is called '*similitude*'. (4) Contemplation of the defects of the Sentiment of self and the eight kinds of power: when one sees their defects, aversion is produced and one renounces the Sentiment of self etc. This stage is called '*arrival*'. (5) The contemplation of the defects of the Intellect: when one sees its defects, aversion is produced and one renounces the intellect. This stage is called '*contraction*'. (6) The contemplation of the defects of Nature: when one sees its defects, aversion is produced, and one renounces Nature; this stage is called '*isolation*'. Thus, this brāhmin obtains Deliverance because of his reasoning. Perfection is obtained by reasoning, that is why one calls it 'perfection by reasoning'.

Having explained 'perfection by reasoning', we pass on to speak of 'perfection by hearing'. A brāhmin hears another read these words: 'Nature is different, the Intellect is different . . . the true itself is different.' Hearing that voice, he comprehends the twenty-five truths and he enters on the stage called 'reasoning', in which he renounces the five gross elements. Then, entering on the stage called 'holding', he renounces the eleven organs; entering on the stage called 'similitude', he renounces the five subtle elements; in the stage called 'arrival', he renounces the Sentiment of self etc.;

in the stage called 'contraction', he renounces the Intellect ; finally, in the stage of 'absolute isolation', he renounces Nature, and that is what one calls final Deliverance.

Having explained 'perfection by hearing', we pass on to explain 'perfection by reading.' There are eight sorts of knowledge by which perfection is attained. Here is what a brāhmin does who comes to the house of his master : (1) he listens with joy ; (2) he listens with exclusive attention ; (3) he seizes (what is said) ; (4) he guards it in his memory ; (5) he comprehends the principles ; (6) he makes arguments ; (7) he makes his choice ; (8) he seizes the reality. Those are the eight constitutive parts of knowledge. By these constitutive parts of knowledge, one comprehends the sense of the twenty-five truths, and, entering on the six stages of contemplation, one attains final Deliverance.

*'The three modes of preventing misery.'* (1) Renunciation of internal miseries : a brāhmin suffers from internal miseries, headache etc., and goes to a physician to cure himself. Because of his internal misery, he desires to acquire knowledge ; desiring to acquire the means of destroying the misery, he betakes himself to a master, from whom he obtains the eight constitutive parts of knowledge ; he seizes the sense of the twenty-five truths ; entering at last on the six stages of contemplation, he attains final Deliverance. That perfection has its origin in internal pain and one ought to consider the spiritual misery as identical with the corporeal misery. (2) Renunciation of external misery : a brāhmin suffers from an external pain, that is to say, caused by a man, a beast, a bird or even a mountain, a tree, a rock etc. ; not being able to support the suffering, he desires to know the means of destroying the misery. He goes to a master, in whose house he practises the eight divisions (of knowledge) ; he seizes the sense of the twenty-five truths, and, entering on the six stages, he attains final Deliverance. That perfection has then its origin in external misery. (3) Renunciation of misery caused by natural phenomena : a brāhmin is afflicted by misery caused by a natural phenomenon, cold, heat, rain etc. ; incapable of supporting it, he goes to a master to seek the eight-fold knowledge, by which he seizes the sense of the twenty-five truths : then, entering on the six stages of contemplation, he attains final Deliverance.

*'The perfection which one obtains from friends.'* In this case, knowledge is attained purely by means of the 'good friend' (kalyāṇamitra) and not by the eight constitutive parts of knowledge. Having gained the full knowledge, one gains final Deliverance.

*'The effects of gifts.'* A brāhmin is hated by others, and as he sees it, he becomes an ascetic ; when he has become an ascetic, his master and his fellow-disciples also hold him in hatred and do not communicate

knowledge to him. Conscious of his little chance, he betakes himself to a distant village to remain there, saying to himself: 'In this village, there are no brāhmins; I can pass there my summer (varṣa)<sup>1</sup> retreat.' During his sojourn, one makes him many gifts. He gives the superfluous to his friends and to his acquaintances. He gives of it even to women and to shepherds. All the inhabitants of the village cherish him. At the end of the summer-retreat, everybody makes gifts to him: the triple staff, the water bowl, clothes etc.; at the approach of a festival of Śakra, he says to the villagers: 'Who wishes to accompany me to my native country to be present there at the festival? Those who wish to accompany me should bring each one a gift for me'. Arrived at his place, he betakes himself to his old master. Choosing the best gifts, he makes an offering of them to him; the rest he distributes to his fellow-disciples. Then, the master, the fellow-disciples and the others commence to love him. His master, by way of gift, communicates knowledge to him. By that knowledge he arrives at absolute knowledge and final Deliverance. That perfection then is acquired by gifts.—These eight sorts of perfection are also called by the sages of antiquity: (1) crossing by oneself; (2) crossing well; (3) crossing all; (4) crossing with joy; (5) crossing with an excessive joy; (6) crossing with full joy; (7) crossing by love; (8) crossing by universal love.<sup>2</sup>

[**Sub-commentary**<sup>3</sup>.—'The sages of antiquity also call them:'] (1) 'Crossing by oneself.' A man of that class is very intelligent. By his own reasoning he obtains wisdom (*prajñā*)<sup>4</sup>. One calls that wisdom 'perfection by the act of crossing oneself,' because it is not due to the teaching by another. For that reason, the act of crossing by oneself is not (one) other than *prajñā*. As *prajñā* makes us escape from this shore and arrive at the other, one calls it 'that which crosses'. The act of arriving by crossing is called final Deliverance, that is to say, perfection. Relatively to its cause, *prajñā* is called 'that which crosses', and relatively to its effect it is called 'perfection'. This perfection by the act of crossing is obtained by our own reasoning; that is why one calls it 'crossing by oneself'. The sense of the seven other perfections is not different; the names alone differ.—(2) 'Crossing well'. *Prajñā*

<sup>1</sup> [The French reads 'retraite d'été (summer-retreat)'; but M. Takakusu inserts 'varṣa' within brackets after 'été'. One wonders what the Chinese text supports. It is difficult in any case to understand the equation of summer with the rainy season.]

<sup>2</sup> . . . . . Gauḍapāda gives the following names: (1) *tāram*; (2) *sutāram*; (3) *tāratāram*; (4) *pramodam*; (5) *pramuditam*; (6) *pramodamānam*; (7) *ramyakam* [mis-spelt in the *Bulletin* as *vamyakam*]; (8) *sadāpramuditam*.

<sup>3</sup> This *tīkā* seems to be by Paramārtha himself.

<sup>4</sup> ...*po-jou*, 'prajñā', 'wisdom'. The conception is the same as that of the *prajñāpāramitā*, 'the perfection of wisdom' of the Buddhists,

and Deliverance are obtained, be it by our own power, be it by that of another. A man of this (second) class has intellectual organs a little inferior [to the first] and he ought to profit by the instruction of another; but nevertheless his spirit is very active and by that he attains Deliverance. That is why one speaks of 'perfection by the act of crossing well'.—(3) 'Crossing all'. One calls (this class) 'crossing all,' because the men of this class, having intellectual organs doubly feeble, ought to rely uniquely [solely] on instruction by others.—(4) 'Crossing with joy.' A man of this class, suffering from an internal misery, headache or something else, goes to find the physician and asks him to treat it; he can thus escape for a certain time from internal misery. That is a joy for him. But he thinks later that it is not final Deliverance; knowing that final Deliverance is attained by absolute isolation, he betakes himself to a master of Sāṃkhya to learn *prajñā* and to attain Deliverance. Thus he experiences another joy. The expression 'crossing with joy' derives from the double joy which we have just explained.—(5) 'Crossing with an excessive joy.' A man of this class afflicted with internal and external miseries goes to seek a master, and asks him to cure him. Cured temporarily of the two sorts of misery, he experiences directly the double joy. But knowing that it is not yet final Deliverance, he goes to seek a master (of the Sāṃkhya). Having studied perfection, that is to say, the means of crossing, he experiences an excessive joy. That is why one speaks of 'the excessive joy'.—(6) 'Crossing with full joy'. A man of this class suffers from three sorts of misery: internal misery (headache etc.); external misery caused by the sword, the whip etc.; natural misery caused by the wind, rain, cold, heat etc. He goes to seek a master to find a remedy. When he is cured, he is in the state called 'full joy'. But knowing that it is not yet final Deliverance, he goes to seek a master (of the Sāṃkhya) for instructing himself; thus he attains perfection. That is why one says 'crossing with full joy'.—(7) 'Crossing by love'. By the love and the pity of the master a man learns how one realises perfection. Thus it is attained, thanks to the love of the master.—(8) 'Crossing by universal love'. A man of this class, after having been hated by all, gives in alms all his goods and thus makes himself loved by all. Since all wish him to attain Deliverance, one says in this case 'crossing by universal love.']

The opposites of the eight classes of perfection are called 'the eight kinds of incapacity,' i. e., not crossing by oneself . . . universal non-love. There are then twenty-eight incapacities, eleven which are caused by the defects of the organs, and seventeen which are caused by the corruption of the Intellect. We have in this way

shown that doubt, contentment, incapacity, and perfection are subdivided into fifty categories in all.

[**Sub-commentary.**—The incapacities caused by the defects of the organs are to the number of eleven ; those produced by the corruption of the Intellect are to the number of seventeen ; that makes twenty-eight. The number fifty is reached (in adding to this number) the five doubts, the nine contentments and the eight perfections. That is their complete explanation.]

‘ *The three first-mentioned acts are the curbs to perfection.*’ As an elephant in a rage, when it is well checked by the hook [goad], cannot move as it pleases, so a man, when he is checked by the five doubts, the twenty-eight incapacities or the nine contentments, cannot obtain true knowledge. Outside of true knowledge, there is not the eight-fold perfection ; that is why one says that ‘ the three first-mentioned acts are the curbs to perfection.’ That is why one ought to reject doubt, incapacity and contentment to practise the eight sorts of perfection.

[**Sub-commentary.**—‘ *The three first-mentioned acts are the curbs to perfection.*’ The five doubts, the twenty-eight incapacities and the nine contentments are the curbs of the elephant of the eight perfections. The eight perfections are capable of realising Deliverance, but because of the three curbs, they do not succeed in it. Even so a furious elephant is prevented from running as it pleases, because of the *aṅkuṣa* [goad] which checks it. It is certainly by the eight perfections that one obtains true knowledge, but when they have for curb the three acts, one does not obtain true knowledge. One ought then to reject the three first-mentioned acts to be able to practise the eight sorts (of perfection).]

One may say : ‘ It has been explained higher up (v. XL) that the corporeal form, influenced by the states of being, migrates through the existences. There are two corporeal forms : (1) the subtle body which exists at the moment of conception ; (2) the body given by the parents. These two bodies, united to the eleven organs, are influenced by the eight states of being, and thus is caused migration through the existences. Here, there is a doubt. Which is born first, the corporeal form or the state of being (the disposition) ? ’

[**Sub-commentary.**—The words, ‘ *One may say . . .* ’ introduce a new question. First, one recapitulates the preceding exposition, then one puts the question of priority.—‘ *The corporeal form, influenced by the states of being, migrates . . .* ’ That has been explained higher up (v. XL). The states of being are of eight sorts : four virtues and four vices (v. XLIV). The four virtues are : (1) virtue ; (2) knowledge ; (3) absence of passion ; (4) power. The contraries of the four virtues form the four vices. These eight states are called the

states of being, for he who is under the influence of virtue can gain the path to heaven, while he who is under the influence of vice ought to fall into the path of men and of animals. 'What is it that they influence in the corporeal form?'—'*There are two corporeal forms.*' The aggregate of Nature, the Intellect, the Sentiment of self and the five subtle elements is called '*the subtle corporeal form.*' That which is produced by the five subtle elements, united to the eleven organs, is called '*the gross corporeal form.*'—Which has the priority in birth, the eight states of being or that which ought to be influenced by them, the two corporeal forms? That means to say: 'At first were there the eight states or were there at first the two corporeal forms?']

We reply in this verse :

*LII. Without the states of being, there would not be the (subtle) form-distinct ; without the subtle form, there would be no state of being. There is what is called the form, and there is what is called the state of being ; creation then is of two sorts.*

#### SANSKRIT KĀRIKĀ.

##### *Commentary.*

'Without the states of being, there would not be the (subtle) form distinct'. Without the states of being the (subtle) corporeal form cannot be established, even as without heat there is no fire.

'Without the subtle form, there would be no states of being'. Without the subtle form, the states of being cannot be established even as without fire there is no heat. These two categories are associated as fire and heat, and co-operate like the two horns of a buffalo.

'There is what is called the form and there is what is called the state of being ; creation then is of two sorts'. One gives two names to the products of Nature: (1) the form of creation; (2) the conditions of creation. At the moment of entering into life, (the product) possesses the two.

[**Sub-commentary.**—In the reply, two examples, fire and the horns, prove that priority pertains neither to the states of being nor to the corporeal form ; the two are associated together like fire with heat, or they are of a simultaneous production like the two horns of a buffalo, which originate always at the same time. Even so, from the time that there exists the subtle corporeal form composed of Nature, the Intellect etc., there is necessarily also one of the eight states of being ; they are never separated from the corporeal form. The gross body too, which is produced by the parents, is never separated from the states of being.]

One may ask : 'Is there only a double creation or is there still another name [mode]?' We reply : 'There is a third creation endowed with two series of four states of being and (its products) are called "the beings endowed with Sentiment"', as is said in this verse :

*LIII. The way of the gods is divided into eight ; the way of the brutes into five ; the way of men is one. (All these beings) are called briefly 'beings endowed with sentiment'.*

#### SANSKRIT KĀRIKĀ.

##### *Commentary.*

'*The way of the gods is divided into eight*'. Here are the births : (1) King Brahmā ; (2) the master of the world (Prajāpati) ; (3) the master of the devas (devānām Indra) ; (4) Gandharva ; (5) Asura ; (6) Yakṣa ; (7) Rakṣas ; (8) Piśāca.<sup>1</sup>

'*The way of the brutes is divided into five*'. The births are : (1) quadrupeds ; (2) birds ; (3) reptiles ; (4) those which have a horizontal form ; (5) those which have no movement.<sup>2</sup>

'*The way of men is one*'. For in the human world there exists only one class. The creation of beings endowed with sentiment is said to be divided into three categories ; these three categories are : (1) gods, men and animals ; (2) the subtle corporeal form ; (3) the states of being.—One may ask : 'In the three worlds, what is it that predominates in each place?' We reply in this verse :

*LIV. On high, sattva predominates ; at the root, tamas predominates ; in the middle, rajas predominates ; Brahmā is at the commencement and the pillar at the end.*

#### SANSKRIT KĀRIKĀ.

##### *Commentary.*

'*On high, sattva predominates*'. In the region of Brahmā etc., *sattva* predominates ; there are also *rajas* and *tamas* there, but they are hidden by *sattva*. Brahmā and the other gods live in happiness.

'*At the root, tamas predominates*'. That is the lowest of the three creations ; that is why one calls it 'that which is at the root'.

'*In the middle, rajas predominates*'. The human world is given up for the greatest part to *rajas*. *Sattva* and *tamas* though they exist too, are hidden by the predominance of *rajas* ; it is thus that

<sup>1</sup> . . . 'sand-spirit' ; cf. the Pāli *paṇsupiśāco*. This enumeration differs from those given in vv. XXXIX and XLIV. See my Introduction.

<sup>2</sup> Compare vv. XXXIX and XLIV Commentary.

men are given for the most part to misery. The way of men is called 'that of the middle', because it is found in the middle of the three creations. Why is the last of all the creations called 'pillar'? Because the herbs, trees, mountains, rocks etc. support the three worlds; that is why one calls it 'pillar'.

We have then minutely explained the creation of the (subtle) form, the creation of the states of being, and the creation of beings endowed with sentiment. The triple creation is the product of Nature; it is thus that the end of Nature is fulfilled, that is to say, that it produces the world and realises Deliverance.—One may ask: 'In the three worlds, among men, gods or animals, which is it that suffers, which is it that enjoys? Is it Nature or is it one of its products: the Intellect, the Sentiment of self, the five subtle elements or the eleven organs etc.? Or is it Spirit?' We reply in this verse:

*LV. Among them, the conscious Spirit alone suffers the misery born of old age and death, so long as it is not separated from the corporeal form. That is why it is said briefly that it is (in) misery.*

#### SANSKRIT KĀRIKĀ.

##### *Commentary.*

'Among them, the conscious Spirit alone suffers the misery born of old age and death'. In the three worlds, there is misery caused by old age. (It manifests itself by) wrinkles, grey and falling hair, short respiration, the act of leaning on a staff and being disregarded by one's clan [family?]. Those are the miseries caused by old age. As for the miseries caused by death, here they are. Suppose a man who has acquired the eight powers or the five subtle elements or the five gross elements; at the hour of death that man is marked out [branded?] by Yama. The miseries which he suffers at that moment are called the miseries caused by death. Further, there are miseries of the intermediary period (between birth and death; cf. v. I and LI). It is the conscious Spirit which suffers these miseries; Nature and the gross body, being unconscious, do not suffer them. That is why it is said that Spirit ought to suffer misery and not Nature or the others.—One may ask: 'How much time does Spirit suffer misery?'

*So long as it is not separated from the corporeal form. That is why it is said briefly that it is (in) misery.'* So long as the Intellect etc. and the subtle form are not separated (from the Spirit), the Spirit suffers misery. When the subtle form is separated from the gross form, Spirit is delivered at one stroke, and, in the state of Deliverance, it does not suffer the miseries of which we have spoken.

So long as it has not renounced forms, subtle and gross, it cannot be delivered from misery ; that is why one says briefly (that associated with) forms, subtle and gross, it ought to be considered as overwhelmed by misery. One may ask : ' Is that the sole function of Spirit ?' Or is there still another ? ' We reply in these lines :

*LVI. There are the functions of Nature (explained), from the Intellect up to the five gross elements. She acts with a view to deliver the souls of the three worlds ; she performs the work of another as if it were her own work.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

' *There are the functions of Nature, from the Intellect up to the five gross elements.*' What is the subject of this verse ? The most important points of the seventy verses have been fully explained. How is that ? Because we have already rendered manifest the double function of Nature (bondage and final Deliverance) : (1) birth and death succeed one another ; in other words, Nature makes Spirit, associated with the matter of the three worlds, pass through a gradual development. First she produces the Intellect, from the Intellect the Sentiment of self, from the Sentiment of self the subtle elements, from the subtle elements the eleven organs and the five gross elements. In the body which consists of these twenty-three products, the Intellect is the first, and the five gross elements the last.

' *She acts with a view to deliver the souls of all the three worlds ; she performs the work of another as if it were her own work.*' In order to deliver the souls, [who belong to] the way of the gods and to those of men and animals, she gradually causes the eight perfections (v. LI). When she makes (Spirit) see the difference between Nature and Spirit, she acquits herself of her double function to the profit of another and not for herself ; like a man who occupies himself in the affairs of his friend and not in his own, Nature acts for another (i.e. for Spirit) not for herself.

One may ask : ' You say that Nature, having realised the end of Spirit, is free to separate herself from Spirit. But Nature is unconscious and Spirit alone is reasonable [rational]. How can Nature intentionally make another associate itself with matter, migrate through the three worlds, and finish by being delivered ? If she is endowed with that intention, she is not unconscious.' We reply : ' In observing unconscious things, we find that they unite or separate themselves (i.e. act or cease to act), as is said in this verse :'

*LVII. In order to nourish the calf, an unconscious (substance) becomes milk; thus is it with Nature, who, though unconscious, acts to deliver Spirit.*

## SANSKRIT KĀRIKĀ.

## Commentary.

*'In order to nourish the calf, an unconscious substance becomes milk.'* Thus, in this world, water and herbs, unconscious substances eaten by the cow, become (milk) to nourish the calf. In this case, milk is produced during [the period of] a year. But when the calf is older, capable of browsing on the herbs by itself, the cow, its mother, though absorbing herbs and water, gives no more milk.

*'Thus is it with Nature, who, though unconscious, acts to deliver Spirit.'* Unconscious Nature operates Deliverance. Nature and Spirit unite themselves and separate themselves; separated, they no more unite. Then, a verse says:

*LVIII. As in the world the accomplishment of a work has for end the suppression of incertitude, so the actions of the non-evolved principle have for end the Deliverance of Spirit.*

## SANSKRIT KĀRIKĀ.

## Commentary.

*'As in the world the accomplishment of a work has for end the suppression of incertitude.'* As in the world, a man who finds himself in incertitude bestirs himself on all sides to rid himself of that feeling, *'so the actions of the non-evolved principle have for end the Deliverance of Spirit.'* Because of Spirit, Nature is, so to say, in incertitude, and desires to act for the profit of Spirit; in the first place, she makes it seize the objects, that is to say, sound and others; in the second place, she makes it comprehend the difference between the three *guṇas* and Spirit. When the feeling of incertitude has been suppressed, Nature and Spirit can separate themselves, once for all. 'Non-evolved principle' (*avyaktam*) is another name for Nature, for she is above the domain of the organs of sense. For the same reason, one calls her also 'the obscure'.<sup>1</sup> If it be thus with her, how does one know that she exists? We know the real existence of Nature for the five reasons explained higher up; it is said in a preceding verse (v. XV): 'Because the specific classes are finite;

<sup>1</sup> . . . that is to say 'tamas'. For this name of *prakṛti*, cf. Garbe, *Sāṃkhya-philosophie*, p. 205; Max Müller, *Six Systems*, p. 322.

because there is homogeneity ; because there is production effectuated by energy ; because there is difference between cause and effect ; because there is no distinction in the form of the universe' : for these reasons it is said that Nature exists. Then, a verse says :

*LIX. As an actor appears on the scene, and having represented some one, disappears, thus Nature retires after having obliged Spirit to manifest itself.*<sup>1</sup>

### SANSKRIT KĀRIKĀ.

#### Commentary.

' *As an actor appears on the scene, and having represented some one, disappears.*' An actor shows himself to the spectators, in dance and song ; when one has seen him and he has finished, he disappears behind the curtain. Even so Nature : she shows herself in the three worlds, bound be it to the Intellect, be it to the Sentiment of self, be it to the five organs of action, be it to the five gross elements, be it to the three *guṇas*. After having shown herself, she retires and ceases to suffer the three heats (miseries) [tāpa]. That is why it is said : ' *Thus Nature retires after having obliged Spirit to manifest itself.*'

One may ask : 'How many means does Nature possess to manifest herself ?' We reply in this verse :

*LX. By multiple means she (Nature) gives services to that (Spirit) which does not render them to her ; endowed with the guṇas, she gives to that which has no guṇas ; she does the work of another without profit to herself.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

' *By multiple means she gives services to that which does not render them.*' The objects of sense, sound, touch, form, taste, odour etc. manifest themselves to Spirit. It realises, so to say, this fact in saying : 'I am different from these objects.' Spirit, having received these services from Nature, gives her nothing in return.

' *Endowed with the guṇas, she gives to that which has no guṇas ; she does the work of another without profit to herself.*' Nature is endowed with the three *guṇas* : *sattva*, *rajas* and *tamas* ; but Spirit has not these *guṇas*. Just as a man does good to his friends

<sup>1</sup> The text has . . . : 'having obliged Spirit to be itself manifested'. But it is probable that the translator has ill understood 'puruṣasya . . . ātmānam prakāśya' : 'having shown herself to Spirit' ; cf. v. XLII.

without awaiting a recompense, so Nature, from the beginning, does the work of Spirit, according to the will of that one, until it shall have attained Deliverance. Spirit never returns the service received : that is why it is said : ‘She does the work of another without profit to herself.’—One may ask : ‘Spirit after having seen Nature fully and adequately, finishes by attaining Deliverance. Is it that after that Spirit sees Nature only confusedly?’ We reply in this verse :

*LXI. Extremely delicate is Nature ; I think there is nothing (as delicate) as she. ‘I have now been seen’ : then she hides herself and does not show herself any more.*

## SANSKRIT KĀRIKĀ.

*Commentary.*

‘*Extremely delicate is Nature ; I think nothing is (as delicate) as she.*’ Thus in the world a man sees a woman endowed with excellent qualities ; then he sees another who is most excellent of all ; he thinks : ‘This is the most excellent and the one who is without rival.’ Even so Nature is the (most) delicate of the twenty-four principles. How do you know that ? Because she does not bear the look (is invisible).

One may say : ‘This opinion is not correct, because the isolation of Spirit does not come from [the fact] that it sees Nature. For, the master who considers Īśvara as the cause of the world says : “Spirit, ignorant and separated from Nature contents itself with miseries and with joys ; Īśvara can send it into heaven or into hell.”<sup>1</sup> Because of that, Nature cannot be liberated, even when Spirit has seen Nature. The delicacy of Nature cannot be proved. Then, the master who considers spontaneity as the cause (of the world) says “The opinion which asserts that in seeing Nature one obtains Deliverance is not correct, for Deliverance is obtained spontaneously ; it has been said higher up (v. XXVII) : what produces the white colour of the hamsas, the green colour of the parrots, and the variegated colour of the peacocks, it is from that that I too am created. Thus spontaneity is the cause of the entire world ; Deliverance is effectuated then spontaneously and not by Nature.” Then, a master (who adheres to the theory of the Spirit) says : “It is not correct to say that in seeing Nature one obtains

<sup>1</sup> Gauḍapāda gives thus the original of this verse :  
 ajño jantur anīśo’yam ātmanaḥ sukhaduḥkhaḥayoh ;  
 īśvaraprērito gacchet svargam narakam eva vā ||  
 [The *Bulletin* version contains several misprints.]

Deliverance, for Deliverance is effectuated by means of the Spirit,<sup>1</sup> as is said in these lines : The hymns of the four Vedas exalt the souls (*puruṣas*) of the past and of the future who have power over life and death, whose acts have been accomplished, and are not repeated any more.<sup>2</sup> It is by that cause that Deliverance is effectuated and not by the act of seeing Nature.”

Replying to all, we say : ‘ You consider *Īśvara* as the cause, but your opinion is not correct. Why? Because he has no *guṇas*, while the world possesses them ; cause and effect would then be dissimilar ; for that reason *Īśvara* cannot be the cause. Nature alone is endowed with the three *guṇas* ; as the world is endowed with them too, we know that Nature is the cause.

‘ For the same reason, Spirit ought not to be considered any more as being the cause, for it has no *guṇas*.

‘ It is not any more correct to consider spontaneity as the cause of the world, for it is beyond the domain of perception and inference. By perception we see first the cause and then the effect. By inference we avail ourselves of what has been seen by perception to calculate the past and the future that we know by this means.

‘ If you say that we can know it by *āptavacana* (that is to say, by the lines cited higher up), that is still incorrect, for the opinion that is expressed there is completely erroneous ; it is not then an *āptavacana*.’

One may say : ‘ There are yet some other opinions. There are men who consider time as the cause ; thus it is said in a verse : “ Time matures all that exists, it destroys all that exists ; when the world sleeps, time is awake ; who can elude time ? ” ’<sup>3</sup> All things derive from time ; that is why one attains Deliverance without the vision of Nature.’

We reply : ‘ The opinion which considers time as being the cause is erroneous, for time is not found among the three categories, Nature, its products and Spirit, which include all things that exist. Outside the three categories there is nothing ; they do not include time ; we know then that time does not exist. What one calls time

<sup>1</sup> The master who considers Spirit as the cause of deliverance belongs to the Vaiśeṣika school.

<sup>2</sup> The last phrase of the verse is not quite clear to me ; one might translate also : ‘ who, having gone everywhere, go no more anywhere ’. The Chinese has : . . . . The Japanese commentator says : ‘ who have accomplished their religious acts and who have to suffer no more misery on the earth ’.

<sup>3</sup> The text of Gaudapāda is :

kālaḥ pañcāsti bhūtāni kālaḥ samharate jagat ।

kālaḥ supteṣu jāgati kālō hi duratikramah ॥

Paramārtha has read then *pacati* in the place of *pañcāsti*. [At least one edition of Gaudapāda reads *pacati*. Māṭhara reads thus :

kālaḥ sṛjati bhūtāni kālaḥ samharate prajāḥ ।

kālaḥ supteṣu jāgati tasmāt kālas tu kāraṇam ॥]

is the modality of a product; time past, that is a past product, and the present and the future are, even so, present and future products. We know then that "time" is only an epithet of products. For that reason, we consider Nature as being the true cause'. A man, who has acquired that true knowledge, comes to see Nature well and fully, after which she hides herself and separates herself from Spirit, operating thus the Deliverance of Spirit. That is why it has been said: 'Excessively delicate is Nature; I think there is nothing (as delicate) as she.'

One may ask: 'When Nature has been seen, why does she retire?' We reply:

'*"I have now been seen": then she hides herself and does not show herself any more.*' Just as a lady of a good family virtuous by nature, is covered with confusion and hides herself when a man has seen her unexpectedly, even so, Nature,<sup>1</sup> when Spirit has seen her well and fully, retires and hides herself, and Spirit rests completely isolated.

One may say: 'The men of the world, even sages, are accustomed to talk thus: "the Spirit is bound, the Spirit is delivered, the Spirit migrates through the existences." These words, are they correct or false?' We reply: 'They are false.' 'How do you know that?' It is said in this verse:

*LXII. Spirit is not bound, is not delivered, does not migrate through the existences; Nature alone is bound, delivered, [that] alone migrates.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

'*Spirit is not bound, is not delivered.*' Spirit is not bound. How is that? Because it has not the three *guṇas*, because it is omnipresent, because it is not a product, because it is incapable of action. Enchainment takes place because of the possession of the three *guṇas*; it is subjected to 'natural bondage'.<sup>2</sup> (It is not bound), because it is omnipresent. In speaking of bondage, we distinguish *here* from *there*. What is *here* is not *there*; there is then bondage *here*. But for Spirit there is not *here* or *there* (since it is omnipresent); it is not then bound. (Spirit is not bound), because it is not a

<sup>1</sup> The example of the lady of good family (kulavadhū) is given in the *Sāṃkhyatattvakaumudī*, p. 142 of the Calcutta edition; Garbe, *Mondschein*, p. 619. 'Kulavadhūvat' is also found in the *Sūtra*, III, 70.

<sup>2</sup> It is necessary to recall here the 'three bondages' enumerated in v. XLV: (1) bondage by Nature (prākṛta); (2) bondage by a product incidental (vaikārika); (3) bondage by sacrificial gift (dāksaṇika).

product : the products—from the Intellect up to the five elements—pertain to Nature and not to Spirit ; Spirit then is not subject to ‘bondage by a product.’ (Spirit is not bound), because it is inactive. Spirit is not an agent, it is then incapable of action. To offer gifts and all other actions are appropriate to Nature ; Spirit then is not subject to ‘natural bondage.’ If Spirit is not bound, it follows of itself that it is not delivered. However, we say for convenience that Spirit itself is delivered.

‘*It does not migrate through the existences.*’ Spirit is omnipresent. Where could it migrate ? To migrate would be to say : go there where one actually is not. But there is no place where Spirit may not be present ; there is then no transmigration for it. Only a man who does not know this truth says that Spirit is bound, that it migrates. One may ask : ‘If it is thus with it, what is it that is bound and that migrates ?’

‘*Nature alone is bound, delivered, [that] alone migrates.*’ Nature is bound by the triple bondage : natural, incidental, ritual. The subtle body, which consists of the five subtle elements and which is united to the thirteen organs, is bound by the triple bondage and migrates through the three worlds. When one obtains the true knowledge, the triple bondage is suppressed, one is delivered from transmigration and one attains final Deliverance. That is why it is said that the three worlds act by the support of Nature. If then you say that Spirit is bound in the worlds or that it is delivered from death and birth, that is not correct. Another verse says :

*LXIII. rūpaiḥ saptabhir eva tu badhnāty ātmānam ātmanā prakṛtiḥ {  
saivā ca puruṣārtham prati vimocayaty ekarūpeṇa ||*

*By seven modes (v. LXVII) Nature binds herself ; by one mode she delivers herself, in accordance with the desire of Spirit.*

*Note.*—This verse is lacking in the Chinese text. That is perhaps an interpolation posterior to the time of Paramārtha (546), though I cannot give the special reason for it. One may, however, affirm that the original of the Chinese translation did not contain that verse, for there is no room to suppose that the translator had by error jumped over this verse and the commentary, if all the time there had been one. This verse is found in the *Sūtra*, III, 73.

*LXIV. }*

*Ch. LXIII. }* *When one has meditated frequently and up to the end the sense of these truths, one obtains an infallible knowledge, pure and absolute, to wit : that there is no Me, that there is no Mine.*

#### SANSKRIT KĀRIKĀ.

##### Commentary.

‘*When one has meditated frequently . . . the sense of these truths.*’ The truths are the twenty-five principles of which we have often

spoken. 'Meditated frequently and up to the end': in the six processes of contemplation (see v. LI, commentary), these principles are often studied. 'Up to the end' means that the study is exhaustive.<sup>1</sup> By this means one attains knowledge. Because of that knowledge one destroys completely the three (false) ideas *completely*: 'that there is nothing,<sup>2</sup> that the Self [Me] exists, that Mine exists', and the five doubts (explained in v. XLVII). All the functions of all corporeal existences are caused by Nature; there is not 'Nothing', there is no Me, there is no Mine; because all pertain to Nature. By this practice, the knowledge becomes pure and absolute, and by that knowledge Spirit obtains final Deliverance.—One may ask: 'That knowledge, for what does it serve [of what service is it to] Spirit?' We reply:

LXV. }

Ch. LXIV. } *By that knowledge, (Nature) ceases to produce and finishes by abandoning her functions, in accordance with the desire of Spirit. Spirit looks at nature, as a man seated tranquilly looks at a play.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

'By that knowledge (Nature) ceases to produce.' By that true knowledge, Nature does not produce any more the Intellect, the Sentiment of self, the five subtle elements etc. It is said in a verse: 'Just as the decorticated rice sprouts no more in the water or in the earth, so Nature ceases to be prolific, when she is mastered by knowledge.'<sup>3</sup>

'She finishes by abandoning her functions, in accordance with the desire of Spirit.' After having acquitted herself of the two functions to the profit of Spirit—to make Spirit seize the objects; to show it the difference between Nature and Spirit,—she abandons all her functions.

'Spirit looks at Nature, as a man seated tranquilly looks at a play.' Just as the spectator of a play sits there tranquilly, so Spirit looks at Nature in all her functions without ever being moved and makes, so to say, this reflection: 'She binds all men, and she finishes by unbinding all men.'—One may ask: 'What does knowledge accomplish between Nature and Spirit?' We reply in this verse:

<sup>1</sup> The Chinese take *aparīṣeṣam* as an adverb and not as an adjective of *jñānam*.

<sup>2</sup> The first false idea, . . . , 'there is not', 'nothing' is strange. The Bombay edition of Wilson's text has *nāsti* in the place of *nāsmi*. But the act of isolating *nāsti* and making of it the first false idea is a misconstruction of Paramārtha's.

<sup>3</sup> This verse comes without doubt from the *Pātañjalayogasūtra*; the idea of it is also given in Alberuni, *Indica*, I, p. 55.

LXVI. }

Ch. LXV. } 'I have seen her' (says Spirit) and holds itself apart. 'I have been seen' (says Nature) and she retires to hide herself. Nature and Spirit may meet again, but there is no more creation, because there is need for it no more.

### SANSKRIT KĀRIKĀ.

#### Commentary.

“‘I have seen her’ (says Spirit) and holds itself apart.’ In this world a man sees a play executed by different actresses; he thinks: ‘I have seen them sufficiently’, and he ceases to look at them. The actresses think: ‘Our play has been seen’, and they retire from the scene. Even so, after having seen Nature, Spirit ceases to look. Nature too holds herself apart, saying: ‘I have been seen’. One may ask: ‘Spirit, even like Nature, is omnipresent. When the one and the other are united, that state will endure for ever, and they will no more be disunited. How is it that that union does not cause the production of a body?’ We reply:

‘Nature and Spirit may meet again, but there is no more creation, because there is need for it no more.’—You affirm that Spirit and Nature are omnipresent, and that for that reason, they are united for ever. That is true in effect. But why then is there no more creation? Because there is no more need for a creation. The end of creation is double: (1) to make Spirit seize the objects; (2) to show to Spirit the distinct existence of Nature. This double end once accomplished, there is no more need for a creation.—One may ask: ‘If it is thus with it, the end is uncertain, since the union of the two is its cause.’ We reply: ‘Because of the power of perfect knowledge, Spirit seeing the mature [elderly; rotten] state of Nature, is disgusted with her, and contents itself with looking at her.’ Even if they united once again, it can no more result in creation. Thus a creditor and a debtor have relations together on the subject of the debt; but the debt paid, the two men have relations no more, though they may meet again; it is the same with Spirit and Nature.—One may ask: ‘If by knowledge one gains final Deliverance, you who possess that knowledge and I who possess that knowledge, why are we two not yet delivered?’ We reply in these two verses:

LXVII. }

Ch. LXVI. } Because of perfect and full knowledge, dharma etc. have influence no more. Transmigration is arrested, like the body of the wheel (of the potter), the movement of which one interrupts.

## SANSKRIT KĀRIKĀ.

*Commentary.*

'Because of perfect and full knowledge, dharma etc. have influence no more.' 'Perfect knowledge' means the real knowledge of the twenty-five principles. 'Full knowledge' means the knowledge of the twenty-five principles without augmentation or diminution. By the power of that knowledge one destroys and parches the seven modes: (1) virtue; (2) vice; (3) ignorance; (4) absence of passion; (5) passion; (6) power; (7) impotence. Just as grains parched by fire germinate no more, even so the seven modes (sapta-rūpa), seized by knowledge, have no more influence. We other men migrate without cessation. This transmigration in the seven spheres <sup>1</sup> is caused by virtue and the other (modes) obtained in prior existences. But by reason of knowledge, these causes cease to bear their fruit. Just as, without an umbrella, one has no shade, so without an antecedent cause, there is no corporeal form. Then a man who possesses knowledge and on whom, for that reason, the acts committed in prior existences have no more influence, stops (in transmigration); like the wheel (of the potter) the movement of which one interrupts.

One may ask: '(But finally), having obtained knowledge, at what moment is one delivered?' We reply in this verse:—

LXVIII. }

Ch. LXVII. } When (Spirit) abandons the body and when, having shown the objects to it, Nature quits Spirit, the final and definitive <sup>2</sup> isolation is accomplished.

## SANSKRIT KĀRIKĀ.

*Commentary.*

'When Spirit abandons the body.' That is the moment when the influences of prior actions, virtue and vice, is exhausted, that is to say, just the moment when we quit this body. At this moment the earth element which is in our body returns to the general element of earth, the ether in us returns to the element ether, the five organs are absorbed by the five subtle elements, even so the Manas.

<sup>1</sup> These are the places corresponding to the 'consequences' enumerated in v. XLVI; it is naturally necessary to except final Deliverance therefrom.

<sup>2</sup> [In the Sanskrit, the same words 'aikāntika' and 'ātyantika' appear in v. 1 and v. LXVIII, indicating that what was sought has been found and that the quest is at an end. In the Chinese there seems to be a slight difference, judging from M. Takakusu's translation. The words used in v. 1 are 'ni defini ni definitif', 'neither definite (certain) nor final'; but in v. LXVIII, we find 'final' alternating with 'definitif', the latter word meaning nothing more than 'definite' to judge from the commentary. The difference is, perhaps, hardly significant].

‘*Having shown the objects to it, Nature quits Spirit.*’ That is to say, having fulfilled the double end—the creation of all and final Deliverance,—Nature quits Spirit. In the two cases, definitive and final isolation is accomplished. ‘Definitive isolation’ means: because of the true knowledge we reject the indefinite remedies and the opinions of the different schools. ‘Final isolation’ means: for that we abandon the chain of causes and effects taught in the four Vedas (cf. v. I), even the fruits promised for the absence of passion, fruits not caused by true knowledge. Final isolation is ‘definitive’ because it is not followed by another. ‘Final’ would be to say ‘without end’ (eternal). Isolation takes place in the two cases explained above.—One may ask: ‘Of what service is the true knowledge?’ We reply in these lines:—

LXIX. }

Ch. LXVIII. } *That knowledge adapted to the end of Spirit (and which is) secret has been explained by the great ṛṣi; by it the production, the duration and the destruction of the world can be measured.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

‘*That knowledge adapted to the end of Spirit.*’ ‘That knowledge’ is the perfect knowledge of the twenty-five principles. ‘Adapted to the end of Spirit’: this end is isolation and Deliverance.

‘*(That) secret (knowledge) has been explained by the great ṛṣi.*’ ‘Secret’: that which is hidden by all sorts of erroneous opinions, that which is difficult to manifest, can be obtained only by a perfect master. That which is secret is that which can be transmitted to a brāhmin endowed with the five qualities, but not to any other; that is why one calls it ‘secret’. What are the five qualities? (1) Good place of birth; (2) good family; (3) good conduct; (4) capacity; (5) desire to obtain that knowledge. Those are the qualities which make [one] fit to receive the Law; no one else is capable of it; that is why one calls that knowledge ‘secret’.

‘*Explained by the great ṛṣi.*’ The principles have been explained one by one by the Sage Kapila—One may ask: ‘In what inquiry do they serve?’ Reply:

‘*The production, duration, and destruction of the world can be measured by that knowledge.*’ The ‘world’ is all that exists from Brahmā up to the pillar; for all that there is a creation, a duration and an end. Creation: Nature produces the Intellect etc., up to the five elements. Duration: this is all the time [during which] the subtle

body, influenced by the states of being, migrates through the three worlds. End : by means of the eight perfections (v. LI), (Spirit) rests for ever isolated. The conditions of the three (periods) can be manifested by that knowledge ; since it manifests nothing outside of these three, one calls it absolute knowledge.—One may ask : ‘ From whom proceeds that knowledge ? ’ We reply in this verse :

LXX. }

Ch. LXIX. } *That excellent and beneficent knowledge has been communicated through compassion by the muni, first to Āsuri, who, in his turn, communicated it to Pañcaśikha.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

‘ *That excellent and beneficent knowledge* ’. That knowledge was established for the first time before the four Vedas had appeared. It is by that knowledge that the four Vedas and all the religious schools have been established ; that is why one calls it excellent (agrya). It is by that knowledge that Spirit is delivered from the triple misery, from the principal misery caused by the twenty-four (products), as well as from the triple bondage ; by that is obtained isolation of Spirit or its Deliverance. That is why one says that that knowledge is ‘ beneficent ’.

‘ *It has been communicated through compassion by the muni.* ’ Who has first possessed that knowledge ? The great Sage Kapila possessed at his birth the four qualities, virtue, knowledge, absence of passion and power. Having realised that knowledge, he explained it through compassion. Desiring that that knowledge should not be lost and that it should be communicated to another, he taught it through charity to Āsuri, who explained it, in his turn, to Pañcaśikha and to Vindhyāvāsa ; Pañcaśikha and Vindhyāvāsa <sup>1</sup> treated that doctrine at full length, in sixty-thousand verses in all. The Sage Kapila explained it briefly to Āsuri as follows :

‘ At the first beginning there was nothing but darkness. In that darkness there was a “field of knowledge”. The “field of knowledge” was the *puruṣa*. The *puruṣa* existed, but no knowledge existed. That is why one called (the *puruṣa*) “field”. Then came evolution

<sup>1</sup> There is here a variant. Three texts out of four read : . . . ‘ In his turn, he explained it to Pañcaśikha and to Vindhyāvāsa ; Pañcaśikha and Vindhyāvāsa have treated this doctrine at full length.’ But the Korean text reads : . . . ‘ In his turn, he explained it to Pañcaśikha and Pañcaśikha had treated this doctrine at full length.’ The Korean text then does not speak of Vindhyāvāsa. Cf. my Introduction.

and modification ; thus was originated primordial creation by evolution etc., up to final Deliverance'.<sup>1</sup> The Sage Āsuri, in his turn, explained that knowledge briefly and in identical terms to Pañcaśikha, who explained it at full length in sixty-thousand verses ; thus the doctrine was transmitted up to Īśvarakṛṣṇa, the brāhmin, whose family-name was Kauśika ; that one explained the system in seventy verses, as is said in this verse :

LXXI. }  
Ch. LXX. } *Some disciples, coming one after another, transmitted the knowledge taught by the great Master. Īśvarakṛṣṇa expounded it briefly, knowing the fundamentals of the truth.*

### SANSKRIT KĀRIKĀ.

#### Commentary.

'Some disciples, coming one after the other, transmitted the knowledge taught by the great Master.' That knowledge came from Kapila to Āsuri, who transmitted it to Pañcaśikha ; Pañcaśikha gave it to Ho-kia,<sup>2</sup> Ho-kia to Ulūka,<sup>3</sup> Ulūka to Po-p'o-li,<sup>4</sup> Po-p'o-li to Īśvarakṛṣṇa. By that transmission Īśvarakṛṣṇa obtained the knowledge. He saw that the great treatise (of Pañcaśikha) was difficult to keep in the memory and consequently he reduced it to seventy verses which we have just commented on, and which commence with 'By reason of the torment caused by the three sorts of misery, the inquiry into the means of destroying them is necessary' (v. I). That is why it is said :

'Īśvarakṛṣṇa expounded it briefly, knowing the fundamentals of the truth.'—An intelligent man of this (school) has composed this verse :

LXXII. }  
Ch. LXXI. } *This treatise in seventy verses exhausts that of the sixty-thousand verses ; it explains (the sorts of) creation which proceed from (eight) causes,<sup>5</sup> up to the fifty categories (relating to the Intellect).<sup>6</sup>*

<sup>1</sup> . . . . 'field of knowledge' seems to correspond to 'kṣetra-jñā' one of the names of Spirit ; cf. *Buddhacarita*, XII. 20. For some term borrowed from the Purāṇas by Sanskrit terminology, cf. Garbe, *Sāṃkhyaphilosophie*, pages 205, 293 ; Max Müller, *Six Systems*, page 322.

<sup>2</sup> . . . Ho-kia ; *Jap.*, Kat'-kia ; very probably Gārgya.

<sup>3</sup> . . . Yeou-leouk'a ; *Jap.*, U-lo-kia ; *Sk.*, Ulūka.

<sup>4</sup> . . . . Po-p'o-li ; *Jap.*, Bat'-ba-li. It is difficult to get back to the original. I am of opinion that it is a mistake for . . . Po-li-so ; *Jap.*, Bat'-li-sha ; *Sk.*, Vṛṣā (cf. Vārṣaganya). Cf. my Introduction.

<sup>5</sup> Cf. XLVI, note.

<sup>6</sup> One sees that in this verse and in the corresponding verse of Gauḍapāda the first hemistiches alone correspond. But see the end of the commentary.

## SANSKRIT KĀRIKĀ.

## Commentary.

The subjects of this treatise do not differ from those of that treatise ;<sup>1</sup> a preceding verse explains them thus (v. XLVI) : ' Creation derives in its nature from the Intellect ; it is of four sorts : doubt (5), incapacity (28), contentment (9), and perfection (8). Considering the disparity of the *guṇas*, there are fifty divisions in the Intellect. Besides these fifty divisions, there are ten other categories as is said in the verse : '(1) The existence (of Nature), (2) the fact that she is unique, (3) the end of Spirit, (4 and 5) the five reasons (by which one establishes the existence of Spirit and of Nature, (6) the isolation of Spirit, (7) union,' (8) separation, (9) the multiplicity of spirits, (10) the duration of the body ; those are the ten categories.<sup>2</sup>

(1) 'Existence' means the existence of the effect in the cause (v. IX). (2) 'Uniqueness' : Nature is one and she evolves for the profit of numerous Spirits (v. XVI). (3) 'The end of Spirit' (accomplished by Nature) : this means that Nature makes Spirit capable of associating itself with objects and seeing later the distinction (between Spirit and Nature) (cf. v. XLII).

(4 and 5). 'The five reasons' : by five reasons one establishes the reality of Nature (v. XV), and even so the reality of Spirit (v. XVII). (6) 'Isolation' : by perfect knowledge Spirit attains definitive and final isolation (vv. LXVII, LXVIII). (7) 'Union' (of Spirit and Nature) takes place because both are omnipresent (v. LXVI). (8) 'Separation' takes place, as we have seen it (v. LXVIII). (9) 'Multiplicity of Spirits' : because life and death are not the same (for every individual), as we have explained it (vv. XVII, XVIII). (10) 'Duration of the body' : it is made by the subtle body so long as knowledge is not acquired (v. XLI).

<sup>1</sup> This phrase is the translation of the first hemistich of the last verse of Gauḍapāda. It says that what the *Śaṣṭitantra* contains is also contained in the *Sāṃkhyakārikā*. To illustrate this point still better, the commentary enumerates the fifty subjects of the two treatises. This commentary gives us the almost complete certainty that the great lost work of Pāñcaśikha on the Sāṃkhya system contained fully 60,000 verses, and that it is identical with the *Śaṣṭitantra*, of which we know the existence from yet other sources (Gauḍapāda, v. XVII ; the same, Paramārtha ; Vyāsa, *Yogabhāṣya*, *Sūtra*, IV, 13 ; cf. Garbe, *Mondschein*, p. 627, note 3).

<sup>2</sup> This verse is given in the *Rājavārttika* according to Vācaspati Miśra (S.T.K., v. LXXII) ; it is further cited in the *Sāṃkhyakramadīpikā* (n. 68) of Kṣemānanda. Here it is :

pradhānāstitvam (1) ekatvam (2) arthavattvam (3) athānyatā (?) |  
pārārthyañ ca (?) tathānaikyam (9) viyogo (8) yoga (7) eva ca |  
śeṣavṛttir (10) akartṛtvam (?) maulikārthāḥ smṛtāḥ daśa |

... Anyatā, pārārthya and akartṛtvā do not seem to be found in the Chinese text. Perhaps, has Paramārtha read *pañcārthya* in the place of *pārārthya* ? Thus would be explained his 'five reasons' (4 and 5).

These ten, with the fifty categories, form the subjects of the sixty-thousand verses (of *Pañcaśikha*); the treatise in seventy verses is thus identical (as for subjects) with the treatise of sixty-thousand.

One may ask: 'What is the difference between the great treatise and the little one in seventy verses?' Reply: 'The traditions of the ancient Sages and the refutations of the opinions of others are found in the great [treatise], but not in this one. That is the difference.' '

<sup>1</sup> This is the translation of the last hemistich of *Gauḍapāda*, v. LXXII: 'Ākhyāyikāvirahitāḥ paravāḍavivarjitās cā 'pi.' The commentary reproduces then what the text has omitted. It was, perhaps, impossible for the Chinese translator to enclose within the twenty characters of his verse the entire sense of the Sanskrit verse. *Paramārtha* seems to have been often obliged to skip in the translation of the text this or that word, free to take it up again in the commentary.

# PRELIMINARY OBSERVATIONS ON SOME POLYCHÆTE LARVÆ OF THE MADRAS COAST

AND

*A Note on the Occurrence in Tow-net Water of the Larvæ of  
Chætogordius, Moore*

## INTRODUCTION

THE Polychæte larvæ which form the subject of these studies were all obtained from the Madras coast within a couple of miles from the shore. The collection was made fairly systematically and extended over a full year. A surface tow-net of fine bolting silk was used and the net was worked from an ordinary catamaran so common on the Madras coast. On arrival at the Laboratory the larvæ were isolated and picked out and kept in separate glasses of sea-water which was renewed practically every alternate day. The larvæ developed fairly well and in a few cases lived for over a fortnight. A pipetteful of the minute fresh plankton characteristic of the season was now and then given and apart from this no attempt was made at regular feeding of the organisms. The greatest difficulty was to keep the temperature constant. This was done by keeping the dishes with the larvæ in other larger dishes of water. This prevented, to some extent, too rapid a rise of temperature during nights when the Laboratory doors were closed.

This systematic collection of the plankton extending over several months has made it possible to make certain observations of a very general nature. In the actual collecting of the plankton it has been found repeatedly that some organisms occur in patches, that is, they may be found quite in abundance at one part of the coast but practically absent a hundred or two hundred yards away. To mention a typical case in point, post larval stages of *Loimia medusa*, which were obtained in incredible numbers on 16-6-30, were not encountered a day later, but turned up in crowds in the next collection. This is by no means a new observation, but has been pointed out by Herdman (1923) and others in the Irish Sea. In coming therefore to any generalisation regarding the seasonal vari-

ation of these larval forms this fact was fully remembered and only when forms failed to turn up for days was any importance attached to such absence. The following table gives an idea of the seasonal variation in the occurrence of the more common forms.

In point of numbers *Mitraria* larvæ stand out first. They have a short sharp maximum in August. *Spionids* come next. They are very abundant in the months of November and December, less so in January. During February and March they again become numerous but not to the same extent as in November and December. *Terebellids* are very common in November and once again in June. *Nephthyds* are common in November, December and February; *Phyllocidids* in December and January. *Eunicids* and *Polynoids* occur in March and April generally, while *Nereids*, never very numerous, occur in February and March. *Chaetosphaerids* and *Chaetopterids* have for their favourite months November and March while *Magelonids* are of frequent occurrence in November and January. It will be seen that November to March are crowded months and this is the period when the Phytoplankton is also abundant. This is only a very general scheme and should not be taken to mean that stray individuals cannot be picked out in months other than those stated. A few important families such as *Nereidæ*, *Polynoidæ* and *Polydoridæ* have been left out. An account of their larvæ will follow.

#### FAMILY PHYLLODOCIDÆ, GRUBE.

Long slender worms with numerous segments. Prostomium is distinct, conical, oval or heart-shaped with 4-5 antennæ. Two eyes are present. There is an unarmed pharynx. The first three segments carry tentacular cirri. The succeeding segments have uniramous parapodia with foliaceous dorsal and ventral cirri. The setæ are composite. There is a fairly prolonged pelagic larval stage.

Two forms of larvæ occur in large numbers usually in the months of November, December and January.

*Phyllodocid with one hook*.—Several advanced trochophores were obtained (Fig. 1). The larva is very contractile and measures 380  $\mu$  long and 145  $\mu$  broad. There is no

	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.
Rhynchids												
Phyllodoctids												
Acetopods												
Nereids												
Nephtyids												
Eunicids												
Spiomids												
Chaetosphæroids												
Meltravia												
Chaetopods												
Mage-tonig												
Terebellids												
Caprellids												

Table of Seasonal Occurrence of Polychæte Larvæ in Madras.

characteristic pigmentation, but the body is of a dirty yellowish green colour. Preoral part is very contractile so much so that it becomes now and then obliterated. Two reddish eyes are present on the prostomium. In relation with each eye, for a similar larva, Hacker (1896) mentions a small group of cilia. Such a group is not present in this form. The prototroch is placed in the first half of the larva but the appearance greatly varies according to the state of contraction of the larva. The cilia of the anterior row are much shorter than those of the posterior. In front of the prototroch on the ventral middle line is the characteristic 'hook'. It is difficult to make it out fully as it is often laid close against the body in which position it becomes practically invisible. The posterior cilia of the hook are the longest; the anterior cilia get gradually shorter and merge with the hind end of the akrotoch in front. A small patch of minute cilia is present at the anterior end.

The mouth is placed behind the prototroch and is surrounded by cilia slightly longer than the short cilia forming the neurotroch which commences behind the mouth and is continued quite to the posterior end and is not observed to widen out into a diamond-shaped patch as stated by Gravelly (1909) for his Port-Erin *Phyllodocid* A.

The front part of the alimentary canal projects into the prostomium and then curves backwards and is continued to the anus. Yellowish nutrient globules fill the anterior part.

Telotroch is present but is poorly developed as compared with the prototroch. Anal region is distinctly yellowish green. Segmentation has commenced but there is no indication of appendages.

*Phyllodocid with two hooks.* (Fig. 2). Several advanced metatrochophores were captured. The larva, like the one-hooked form described, is also very contractile and measures 700  $\mu$  long and nearly 400  $\mu$  broad. Two eyes, rather large, are present. Prototroch is well developed and is formed of an anterior row of long cilia of about 80  $\mu$  and a posterior row of shorter cilia. No cilia are observed at the apical pole. Two hooks with a very small interval between are present on the ventral side of the prostomium. The cilia of the hooks are as long as those of the prototroch. In front of the hooks

there is a distinct akrotoch of small cilia but this does not reach the front end. Behind the prototroch there is a band of brown pigment. The mouth is placed some distance behind the prototroch on the ventral side and is surrounded by a ring of small fine cilia working inwards. Continuous with the posterior part of the mouth is the median neurotoch of minute cilia running to the hind end with two small interruptions in its course. The cilia of the neurotoch are slightly smaller than those of the akrotoch. Anus is surrounded by minute cilia.

Twenty-four hours later the body has undergone elongation and traces of segmentation have appeared. No other changes are noticeable. A day later the body has elongated still more. Segmentation has become much more pronounced. Seven pairs of parapodia have appeared. Anterior parapodia show greater differentiation. Dorsal lobe is broader than the ventral. The rudiments of two pairs of tentacular cirri are visible. Prototroch and telotroch persist as also the two hooks, the akrotoch, and neurotoch. The alimentary canal is still filled with yellow globules. The larva now and then ceases to swim and rests at bottom of the glass.

A day later a pair of tentacles and a pair of anal styles have put in their appearance. The telotroch shows considerable reduction and is on the point of vanishing though the prototroch continues to be vigorous and active (Fig. 3).

Larvæ of *Phyllodoce maculata*, Müller have been described by Agassiz (1867) and McIntosh (1869). Claparède and Mecznirow (1869) describe *Phyllodocid* larvæ from Naples Bay: Leschke (1903) describes larval stages of *Phyllodoce maculata*, *Eteone flava*, Oerst, *E. pusilla*, Faber, *Eulalia bilimbata*, Johnston and *E. sanguinea*, Oerst and Gravely (1909) describes larvæ of *Mystides* (*Phyllodocid* A) and two other *Phyllodocids* B (*Eulalia*?) and *Phyllodocid* C.

Hacker (1896) was probably the first to point out the occurrence of a 'hook' as characteristic of *Phyllodocid* larvæ. He also thought the presence of a row of cilia behind each eye in the trochophore and metatrochophore stages of general occurrence. Gravely (1909) has already pointed out its absence in the Port-Erin *Phyllodocids* and my observations of Port-Erin *Phyllodocid* larvæ while I was there in April 1929

as also my examination of Madras *Phyllodocids* point to the conclusion that this feature cannot be regarded as characteristic of *Phyllodocid* larvæ in general.

There is a great similarity, particularly in the trochophore and metatrochophore stages, between all *Phyllodocid* larvæ. They differ only in details. Generic and specific differences show themselves only in the later stages.

#### FAMILY NEPHTHYDIDÆ, GRUBE.

These are worms with numerous segments. The prostomium is small, quadrangular, with four antennæ usually. The mouth leads into an eversible pharynx with papillæ. Two chitinous jaws are present. Parapodia are biramous with simple barred setæ. Dorsal and ventral cirri are present. First parapodium is rudimentary. Branchiæ are present. The body ends in a single anal cirrus. There is a fairly prolonged pelagic larval period.

#### GENUS *Nephtys*, CUVIER.

*Nephtys* larvæ are very common during the months of November and December and they are best studied during this period.

*Nephtys. Metatrochophore.*—(Fig. 4). Youngest stage obtained measures 180  $\mu$  long and 110  $\mu$  broad and is already provided with seven distinct segments followed by an unsegmented region. Prototrochal region is the broadest part of the body and the prototroch is well developed. The cilia are about 20  $\mu$  long. A telotroch of smaller cilia is present. Two well-developed reddish eye-spots are present. The larva is of pink colour in front of prototroch and also in front of the telotroch. There is no trace of parapodia.

Alimentary canal extends into prostomium. Mouth is transverse and is placed behind prototroch on the ventral side. There is a circle of minute cilia surrounding it. There is no trace of papillæ or jaws at this stage. Greenish vacuoles almost fill up the digestive tract. The most important feature of the colouration is the presence of two patches of bluish green pigment in the middle of the body. Anus is surrounded by cilia. The median style has not yet appeared.

The larvæ swim in large circles and are very active.

*Young Nectochæta*.—(Fig. 5). The next stage examined is already provided with eight segments and an unsegmented posterior region. Six of the segments are provided with rudiments of parapodia. The umbrella is still broad but has already commenced to diminish and now is slightly narrower than the part following. The pigment in the posterior unsegmented part has deepened. Prototroch is strongly developed and seems to be formed of several rows of cilia. Cilia of the prototroch and telotroch are very similar. Eyes have not changed. Parapodia have commenced to show differentiation. Notopodial and neuropodial portions are now distinct and a few barred and simple setæ have appeared. This stage is very similar to the oldest stage described and figured by Claparede and Meczniow (1869).

In the next stage examined there are seven pairs of parapodia. Umbrella is still rounded but is smaller than in the preceding condition. The pigment in front of and behind the prototroch is less intense. The first pair of parapodia have also appeared and are very minute. Gravely for an almost corresponding stage of *Nephthys* describes the prototroch as being composed of a row of short anterior  $20\ \mu$  cilia, and a posterior double row of  $80\ \mu$  and  $30\ \mu$  cilia. It is very difficult to make out any such arrangement in the present form.

Alimentary canal is still bluish green with numerous yellowish vacuoles in the anterior part and the posterior portion comparatively free from them.

The pinkish pigment in the unsegmented region persists. The single anal style has appeared. As the *Nectochæta* grows, more segments and parapodia are added. When the 12 setiger condition is reached the umbrella has still more contracted and instead of being rounded is almost quadrangular (Fig. 8). Telotrochal and prototrochal cilia circlets still persist. Parapodial cilia can now be observed in segments 3-6. Anteriorly a hook seta is often found imbedded at the base of the barred setæ. Barring appears to be fainter in the setæ of the posterior bundles.

Alimentary canal has now become fully differentiated. Numerous papillæ and a pair of chitinous jaws are clearly visible. Hind end of the jaws extends up to the

commencement of the sixth parapodial segment. Anterior part of stomach is now conspicuous by two patches of blue green pigment. As the larva grows the head becomes more and more quadrangular. Prototroch and telotroch continue to function but the prototroch already shows signs of disappearing. Indeed at this stage the telotroch is more active. Soon the larva is provided with 17 pairs of parapodia. Two tentacles have appeared. Prototroch and telotroch have both disappeared. The anal style has grown slightly longer.

*Nephthys* larvæ have been encountered in all seas. Hacker (1896) describes two metatrochophore stages of *N. scolopendroides*, Delle Chiaje, one a six-segmented non-setigerous condition and the other a later 6-7 setigerous stage. A detailed account of the larval stages of *Nephthys* is given by Fewkes (1883). He traces the development from the trochophore stage with large preoral lobe to the ten-segmented condition in which the two pairs of tentacles have just commenced to form and the parapodia are provided with dorsal and ventral cirri. In the late development of the tentacles the Madras form markedly differs from the corresponding larva of Fewkes.

Claparede and Mecznirow (1869) describe the development of a *Nephthys* ascribed by them to *N. scolopendroides*, a form common in the Bay of Naples. At the 8th setiger condition, which is the oldest larva described by them, there is no indication of the tentacles. The parapodia are however provided with cirri. Leschke (1903) describes a six-segment achætoous stage from Kiel Bay. He mentions the occurrence of a ring of brown pigment in front of the anus and he considers the ring as characteristic of *Nephthys* larvæ. A pigment ring occurs in the Madras form also but is of a different colour.

Gravely (1909) describes from Port-Erin a metatrochophore with seven segments and six very minute appendages. He also describes Nectochæta stages, the oldest having nine intertrochal segments and with rudiments of a pair of appendages. Fuchs (1910) has also described the larval development of *N. hombergi*. From a comparison of the descriptions of the larvæ of various authors it seems that *Nephthys* larvæ are monotrochal, later telotrochal. The telotrochal larva is

provided with a large preoral lobe and 5-6 segments. There is then reduction of the preoral lobe and the assumption of a quadrangular shape. Setæ at first appear almost simultaneously in 2-7 segments, followed by considerable differentiation. The first parapodium is minute and develops its setæ some time after the development of the setæ in the succeeding segments. Prototroch disappears first, followed soon by the telotroch and the creeping habit is assumed.

#### FAMILY EUNICIDÆ, GRUBE.

Elongated worms with distinct prostomium with 1-7 antennæ. First two segments are achætous. Sometimes a pair of nuchal cirri are present on the second segment. Parapodia are uniramous; simple, compound and pectinate setæ are present. Branchiæ are very commonly present, and are usually branched. There is a complicated system of jaws in a separate pouch below the gullet. *Eunicids* are mostly burrowers and inhabit littoral regions. Eggs are either scattered or laid in a jelly. Often the worms, as in the Paola, rise up to the surface to swarm. Pelagic period of larval life is rather curtailed. A modified trochophore with a broad band of cilia instead of the typical prototroch.

#### GENUS Eunice, CUVIER.

*Eunice A. Young Nectochæta*.—(Fig. 9). Several early *Nectochæta* were obtained on 22-2-30. They all settled down at the bottom of the glass and were very sluggish in their movements. Body is ovate and measures 325  $\mu$  long and 185  $\mu$  broad. Anterior end is rounded while the posterior is slightly narrowed. Two pairs of eyes are present, the anterior being larger and farther apart than the posterior; both pairs of eyes are reddish in colour. There is a thick cuticle over the body. The larva is provided with three distinct setigerous tufts with a fourth rudimentary tuft just budding out. There are two bands of cilia which could only be observed with considerable difficulty. The anterior of these bands is broad, 100  $\mu$  long, and extends from the level of the eyes to the first pair of parapodial tufts. The cilia are very minute. The second band is narrower and is only one-fourth the total extent of the anterior, though the cilia are slightly longer.

In addition to these two bands there is a fine apical tuft consisting of a few flagella at the anterior end.

The first three pairs of setose tufts are quite distinct and can be retracted almost completely into their setigerous sacs. The first pair consists of one aciculum, two jointed setæ, and one simple seta; the second pair of an aciculum, and three jointed setæ; the third is similar to the second in its composition; the fourth parapodial tuft is rudimentary at this stage but indications of a single jointed seta and an aciculum can already be seen. The acicula do not pierce the skin. All the compound setæ are very similar in appearance; the basal shaft is dilated at its end and the terminal blade is now rather short, stout, and does not appear to be toothed.

The alimentary canal is quite clear and broad in front and rather abruptly narrowed behind. The dental pouch has already made its appearance though, as yet, no indications of jaws could be seen. The sides of this part of the alimentary canal are filled up with large vacuoles, while behind, it is green and is packed with nutrient globules. The digestive tract undergoes sudden narrowing behind and ends in the terminal anus. There are, as yet, no anal cirri.

*Next Nectochæta Stage.* (Fig. 10). In the next two days the larva has grown longer and slightly broader and measures 500  $\mu$  long and 250  $\mu$  broad. Four distinct pairs of setigerous tufts and a fifth indistinct rudimentary pair are present. Differentiation of parapodia has progressed and a dorsal cirrus has appeared in relation with the first parapodial tuft. The setigerous tufts have now a greater number of setæ and are composed of:—

1st tuft	...	...	1 aciculum, 3 jointed setæ, 2 smooth capillaries and also a dorsal cirrus.
2nd tuft	...	...	Same as in the first but with no dorsal cirrus.
3rd tuft	...	...	1 aciculum, and 3 jointed setæ, one of which is very small.
4th tuft	...	...	1 aciculum and 1 jointed seta.

The ciliated bands and the apical tuft of cilia undergo

gradual reduction as the foundations of the fifth and the sixth parapodial tufts are laid down. The eyes persist now without having undergone any change. This stage seems to be a sort of resting period when there is no quick addition of new segments. The larva crawls about in the bottom. Constrictions appear in front of the first setigerous tuft. The vacuoles in the anterior region of the alimentary canal have disappeared; the middle and rectal portions remain green.

There is, as yet, no trace of jaws or tentacles. All the compound setæ have now slightly larger terminal blades which do not appear to be toothed. As the larva grows, greater differentiation of the parapodia becomes discernible. The dorsal and ventral cirri of the second and third segments commence to form. Two days later a median tentacle has appeared in between the posterior pair of eyes. The anal cirri have undergone greater elongation (Fig. 12). The setigerous bundles clearly show now grouping into an upper group of jointed setæ and a lower of capillary setæ in the first segment. There are only six segments with setæ, the last of which has imperfect and indistinctly formed setæ only. In the last two segments simple setæ are not present.

*Eunice B.*—Several atrochal larvæ of this type were noticed in the early part of March 1930. Many of these were picked out and placed in separate glasses and an almost continuous series of stages was obtained.

*Atrochal Stage.* (Fig. 13). The larva is very slightly broader in front than behind and measures 260  $\mu$  broad. The body is uniformly clothed by one broad band of cilia extending from almost the front end to the anus. Anteriorly there is a fine tuft of 75  $\mu$  cilia. The anus is free from cilia. A thick cuticle covers the body. A pair of eyes are present close to the anterior end. The alimentary canal is broad in front and filled with large nutrient globules; it is narrowed behind and terminates at the anus. The mouth opening can be made out with difficulty as a small circular opening on the ventral side about  $1/3$  of the distance from the anterior end but cannot be used as it is filled up with large food globules.

The larva passes rapidly into the next stage (Fig. 14) in about twelve hours. The single band of cilia becomes broken into a broad anterior band extending from the level of the

eyes to a little less than  $2/3$  of the length of the body and a narrow band encircling the body at the hind end. Minute cilia encircle the anus.

The unciliated gap slightly increases and in this gap parapodial rudiments appear. Approximately, three days after the restriction of the general ciliation to 2 bands of cilia, three pairs of setose bundles and a fourth rudimentary bundle have appeared, in regular order (Fig. 15).

In the fourth setiger condition the larva measures  $385\ \mu$  long and  $180\ \mu$  broad (Fig. 15). The prostomium is bluntly tapering. The anterior band of cilia extends from level of eyes to first pair of setigerous tufts. On the ventral side about half-way down the anterior band of cilia the circular mouth could be seen still in an occluded condition. The apical tuft has disappeared but the posterior narrow band of cilia still persists. In addition, distinct nototrochs of minute cilia occur. Anal styles have not yet appeared. In the interval between the two bands of cilia four setigerous tufts can be seen. The first pair are already well developed. Indications of a dorsal and a ventral cirrus can be seen. The other tufts have as yet no parapodial projections. This stage is very peculiar in the setæ not showing any indication of being jointed. The first tuft possesses three setæ. Fig. 16 shows the first parapodium of a slightly earlier stage. The succeeding tufts have three setæ. Fig. 17 shows the 2nd parapodium. Alimentary canal is broad in front, full of globules and narrowed behind. Already the dental pouch has made its appearance but there are no traces of jaws at this stage.

The 5-setiger condition marks an important stage in the development. All the 5 tentacles appear almost simultaneously. A pair of anal styles put in their appearance. Traces of jaws consisting of the mandibles and the great toothed plates can now be clearly seen. The jointed nature of the setæ is not yet quite evident. The tentacles grow very rapidly. A sixth setiger is soon added. The dental pieces are clearer and are jet black. Prostomium becomes more rounded. The already existing setæ have all become jointed (Fig. 18). In addition, a single capillary seta has appeared in the upper bundle of the first and second setose tufts.

Another pair of anal styles appear later internal to the

already existing styles. The intermediate tentacles have outstripped the others and now project well beyond the rest (Fig. 19).

In the ninth setiger condition remnants of front and hind bands of cilia still persist. Dorsal and ventral cirri have appeared in all the anterior appendages. The jointed setæ of the first setigerous tuft have large blades with 2, sometimes 3 teeth (Fig. 20). Those of the succeeding tufts have dilated ends and short blades. In each bundle one of these setæ is stouter and longer than the others of the same bundle.

By the time 12 setigerous tufts have formed the intermediate tentacles have grown much longer, are double the length of the other tentacles and extend up to the third setigerous segment. Now all the cilia have practically disappeared and the inner anal urites carry a few minute bristles. Alimentary canal has become much clearer. The larvæ creep about at the bottom. But no attempt is made by them to build tubes. Development hereafter is very slow. No more segments had been added a fortnight after the 12th setiger condition.

Hacker (1896) has described the Metatrochophore and Nectochæta of a *Eunicid* from Naples Bay. The most complete account of larval development of *Eunice harassii*, Audouin and M. Edwards has been given by Herpin 1926. There is a marked similarity between the Nectochæta stages of the Madras forms and those of *E. harassii*. Pelagic phase is very short. Even at the third setiger condition the larva has practically ceased to swim. Both the forms resemble each other in having an aciculum supporting the three setigerous bundles. In the present form, however, two pairs of eyes (*Eunicid* A) are present even at the fourth setiger condition and no trace of jaws could be seen and there is only one pair of anal styles even though the median tentacle has already appeared.

An account of the more advanced larval stages of *Marphysa sanguinea*, Montagu has been given by Webster (1879) and a complete account of larval development of *Marphysa gravelyi* has been given by Aiyar (1931) and the early stages of *M. teretiuscula* by Borraidaile (1900). A comparison of the larval development of *Eunice* and *Marphysa* is

very instructive. In the former up to the development of the fourth or fifth setiger, growth is rapid but then there follows a pause during which the addition of new segments is very slow and the Nectochaeta is mainly occupied with the differentiation of the parapodia and the development of the tentacles. In *Marphysa* there is a fairly rapid formation of segments while the differentiation of parapodia and the formation of the tentacles lag behind. At the 18th setiger condition in *M. sanguinea* the first tentacle alone has appeared and the intermediate tentacles appear when about seventy segments have been laid down. The same is very nearly true of *Marphysa gravelyi* also. It is a remarkable illustration of how environment can deeply influence the larval development of two closely related genera.

The early development of *Eunicid* larvæ has been described by several authors. A trochophore stage is usually omitted. There is an atrochal condition. This is followed by the restriction of the cilia to two bands, a broad anterior and a narrow posterior. In the unciliated gap between the two bands the first traces of setæ appear. Gravely (1909) however figures a Port Erin larva with the setæ showing out of the broad band of cilia.

Amongst other Eunicid larvæ described mention may be made of *Diopatra cuprea* the development of which has been described in detail by Wilson (1882), of a larva of *Lumbriconereis* by Fewkes (1883) and *Ophryotrocha* by Bræm (1893) and Korschelt (1893). *Ophryotrocha puerilis* is exceptional in being polytrochal.

#### FAMILY GLYCERIDÆ, GRUBE.

A small family of a few genera only. They are elongated worms with numerous segments which are often bi- or tri-annulate. Prostomium conical, annulate, terminated by four small antennæ. Pharynx eversible with papillæ and with few or more chitinous teeth. Parapodia biramous except those at the anterior end which are uniramous. Branchiæ simple or branched or absent altogether. Dorsal setæ simple, ventral compound. Two anal styles. *Glycerids* are mostly creeping forms found mostly under rocks and amongst dense weeds.

There is a well developed trochophore stage followed by a nectochæta stage.

GENUS *Glycera*, SAVIGNY.

*Glycera* sp.—(Fig. 21). Trochophores generally occur in the month of January. A few only were obtained. The larva has an almost oval body, the anterior end slightly narrower than the posterior and both are blunt. The prototroch is well developed, and is placed nearer the anterior end than to the posterior. The prototrochal cilia are  $28\ \mu$  long. A telotroch is present but the cilia are much less prominent than those of the prototroch. No ciliary tuft could be noticed at the front end but there is a patch of minute cilia. There is a similar but smaller patch round the anus at the posterior end. The two eyes are conspicuous and are red in colour. The mouth is very prominent on the ventral side and is placed about midway between the prototroch and the anal end. The alimentary canal is very spacious and extends into the prostomium. Two days later the larva had grown visibly larger. The patch of cilia at the anterior end has become larger and the prototroch has added to itself a few more cilia. The larvæ feed actively. And one or two were noticed to contain in the alimentary canal *Coscinodisci*. Development was unfortunately not traced further. Fuchs (1910) has described in detail the early development of *Glycera convoluta* obtained by artificial fertilization at Plymouth Laboratory and the Madras larva is almost identical with the one described by Fuchs. I have therefore no hesitation in referring this larva to the same genus.

GENUS *Eone*, MALMGREN.

*Eone* sp.—(Fig. 23). A few advanced nectochæta were obtained in the middle of the month of November 1929 and they again appeared about the same time in 1930 also. The larva measures  $1,000\ \mu$  long and  $350\ \mu$  broad. The prototroch still persists and the cilia are  $25\ \mu$  long. Two reddish eyes are placed at the anterior edge of the prostomium.

The latter is 8 annulate and carries four 2-jointed antennæ. There is a pair of slightly flattened anal cirri.

The body at this stage is divided into 13 segments. Well-developed dorsal and ventral cirri are present. The setæ are

in two bundles and all the setæ are compound with long blades which show minute serrations when highly magnified. Some of the pre-anal segments have a row of cilia at base of parapodia and also a row of inter-segmental cilia.

The alimentary canal is distinct and consists of an eversible pharynx and gizzard followed by a wide stomach filled with nutrient globules. The rectum opens between the anal styles. The pharynx has two rows of fleshy papillæ. At the entrance to the gizzard there are two round lobes. The gizzard contains 6 chitinous curiously shaped teeth, two of which are slightly larger than the other four.

It is very difficult to refer this form definitely to any of the genera of the Glyceridæ. The characters of the setae point to its being probably the larva of *Eone*.

#### FAMILY SPIONIDÆ, SARS.

Prostomium small, without tentacles or palps. Peristomium with two long tentacular cirri. Parapodia generally biramous with simple setæ. Notopodial cirri ciliated, finger-shaped and function as gills. No ventral cirri. Burrowers usually.

#### GENUS *Chaetosphaera*, HACKER.

*Nectosoma* larvæ probably belonging to two distinct species have been captured.

*Chaetosphaera* A.—(Fig. 25). These occur in large numbers in the months of February and March and in smaller numbers in November. Most of the larvæ encountered belong apparently to the same stage of development. The body has a robust appearance. Prostomium is small and is produced into a pointed snout which is highly contractile. Minute cilia cover the prostomium and in between these a few stiff cilia can also be seen. Two well-developed tentacles are present. There is no prototroch present at this stage but the bases of the tentacles have cilia in front. These cilia are probably the remnants of the prototroch. Two pairs of reddish eyes are present. The mouth, as is usual in Spionid larvæ, is ventral and is bounded by well-defined thick fleshy lips which show isolated black pigment spots. The lips carry no cilia now. They are capable of great divarication, and the mouth, which is

usually triangular in the normal condition, can be made to appear very much bigger. The inside of the mouth is provided with minute cilia.

Body consists of several segments, and the posterior part of the body is characteristically bent into an s-shape. There is a powerful telotroch. The anus is terminal, and is placed at the bottom of a funnel-shaped depression (Fig. 26). Parapodia are well differentiated, are biramous and are provided with a dorsal group of straight, moderately long, bristled, provisional setæ, which start from their point of insertion in the body, and project freely dorsally and upwards like the ribs of a palm leaf. Fig. 27 shows one of these setae. The setae are free from bristles at the base and at the end. The bristles are increasingly longer from bottom onwards. The lower bundle of setæ of each parapodium is in the form of smooth capillaries (Fig. 28) which do not project very much. In addition to these setæ, in the middle and the posterior segments crochets with two teeth are present (Fig. 29). The body segments are provided with powerful gastrotrochs and rather feebly developed nototrochs. Like all '*Chaetosphaera*' the larva contracts into a ball and in this position the head end is folded over the anal end. In this rolled-up condition the larva swims slowly upside down when the nototrochs can clearly be seen at the hind end. In this position they are found to be in minute groups, set in a row. Now and then the larva straightens out its hind end and swims rapidly for a few seconds and again assumes its favourite attitude.

The alimentary canal is deeply constricted between the segments giving the digestive tract a folded appearance and often has been noticed to contain two or three *Coscinodiscus*.

The shedding of the provisional setæ of the dorsal bundle is accomplished with extraordinary quickness. Isolated larvæ placed in the plankton glass at 10 A.M. had completely shed the bristled setæ by 3 in the evening. Whether this is effected with the same rapidity under natural conditions is not known.

*Chaetosphaera B.*—(Fig. 30). This is slightly more robust than the one described and has the same habit of rolling itself into a ball. It is distinctly bluish green in colour, the pigment being concentrated in the form of transverse streaks in each

segment. The head is produced in front into a pointed process and the bases of the pair of tentacles are ciliated. A prototroch, however, is absent. A powerful telotroch surrounds the terminal anus which is placed in the middle of a funnel-shaped depression with 5 radiating dark streaks of pigment. Two pairs of reddish eyes are present. No cilia could be seen on the prostomium. The upper lip is very thick. Not much could be made out of the lateral lips but they are certainly ciliated. The body segments are all provided with clearly defined biramous parapodia. The provisional setæ persist in all segments. The dorsal groups consist of stout curved yellowish setæ which are serrate on the convex side only and of smooth capillaries in between. Lower group consists of simple smooth capillaries only. In the posterior segments peculiar setæ (Fig. 31) with excavated ends are present. Two minute teeth can be observed in each such seta.

Powerful gastrotrochs are present in most of the segments. They are however difficult to make out in one or two of the anterior and posterior segments. The gastrotrochs act in groups and have a grasping action. They are never all of them in motion at the same time. The larva keeps its rolled up condition with the spines projecting out like the quills of an angry porcupine and it is very difficult to induce it to unroll itself.

Larvæ of *Chaetosphaera* have been described by Hacker (1898) and Gravely (1909). Hacker's forms are *C. falconis*, Hacker and *C. nationalis*, Hacker. *C. falconis* has two kinds of setæ. Those of the dorsal group are boomerang-shaped and are serrate on the convex side. The ventral group consists of moderately long smooth capillaries with hook-shaped end. The setae of *C. nationalis* are all curved and serrate. Hacker also figures an older form in which he shows the first segment as having curved bristled setae and the remaining segments as having long smooth provisional setae.

Gravely (1909) describes three forms of *Chaetosphaera* which he attributes to three different species. His Spionid D (*Chaetosphaera*) has stout, curved, smooth provisional setæ 300  $\mu$  long in the first segment and 200  $\mu$  long in the remaining segments. When these are shed their place

is taken by smooth capillaries similar to those of the ventral group. His second form from the Plymouth plankton has very much stouter setæ, some smooth, some serrate, and resembles strongly, as he says, one of the forms for which Hacker founded his original larval genus. His third form sent to him by Professor Herdman from Port-Erin is described as having mostly serrate setæ with a single flat seta in the middle of some of the tufts.

The Madras form *Chætosphæra* A differs from all the forms described in having straight bristled dorsal setæ in all the segments. The second form *Chætosphæra* B distinguishes itself by its bluish green colour, by strong curved serrate setæ in the dorsal bundles and by the presence of hooded hooks with two points in the posterior segments.

Fauvel (1927) places *Chaetosphaera* under Spionidae. *C. falconis* and *C. nationalis* are regarded as larval stages of Spionids the adults of which are unknown.

#### GENUS CHÆTOPTERIDÆ, AUDOUIN & MILNE-EDWARDS.

Chætopterids constitute a small family of a few genera. Body is divisible into two or three regions. Prostomium is small, mouth terminal without eversible pharynx; anterior region with only a few segments with uniramous parapodia; parapodia of the posterior region biramous. Setæ are simple, smooth, often broadened in the anterior region. Posteriorly, setæ are uncinates and simple capillaries or uncinates only. Often setæ of the 4th setigerous segment of the anterior region show profound modification like the setæ of the 5th segment of *Polydora*.

Chætopterids are essentially tube dwellers. There is a pelagic larval period, rather prolonged.

#### GENUS CHÆTOPTERUS, CUVIER.

*Chaetopterus* sp. A fine metatrochophore (Figs. 32, 33) was obtained in the first week of the rainy month of November. In the living condition the larva is about three and a half times as long as it is broad. The entire body is clothed by very fine cilia. Two powerful bands of mesotrochal cilia are present, the first occupying almost the middle of the body

and the second, similar in girth, encircling the animal one third of the distance from the first band to the posterior end.

The part of the body between the two bands is very slightly constricted. The anterior end is broad and very obtusely rounded. The head forms a hood-like structure which overhangs the very big crescentic, ventrally placed mouth. The lower lip is thick, fleshy and deeply cleft. The hood is semi-transparent, has a broad rim which carries the 3 pairs of eyes of which the posterior are only slightly larger than the others. The tentacles have commenced to form. No rigid cilia or bristles can be seen at the anterior end of the head.

The body, behind the second band of cilia, which Berneck (1893) calls the post-ciliated region, is divided into six segments and the last segment is followed by a stout cylindrical caudal appendage with faint constrictions and carrying at the end a few stiff processes, probably of a sensory nature. The caudal appendage is capable of complete retraction. Ordinarily, however, it is carried extended and is often used to anchor the animal to the side of the plankton glass. Often a sticky yellowish fluid seems to accumulate at the end of the caudal appendage and it is probably by this means that the animal now and then anchors itself. No anal protuberances of the kind which Berneck mentions are present in this form.

Three days later the larva has visibly elongated (Fig. 34). The nine segments in front of the first band of cilia have now become more distinct and the setigerous tufts of the segments are clearly seen in the extended condition of the larva. Fig. 35 is drawn from a balsam preparation and represents the nature of the setæ in this region. It will be seen that there is a general increase in the length of the setæ from the front to the hind segments. The first bristle bundle is the shortest and consists of a number of simple smooth setæ. The setæ of the next group are longer and are greatly flattened. The third bundle consists of several very yellowish broad setæ with lanceolate ends. The fourth bundle is smaller than the preceding and succeeding bundles, is more dorsal, and has one highly modified seta. (Not shown in the Fig.) The setæ of the succeeding parapodia are very much larger and broader.

Besides these simple setæ of the anterior region a pair of chitinous uncinæ plates could be made out on the ventral

side close to the first band of cilia. No other plates could be made out.

Running along the middle ventral line of the larva there is a distinct longitudinal groove which starting at the base of the caudal appendage crosses the two transverse mesotrochal bands and ends in front at the cleft of the lower lip. The entire groove is ciliated; probably there is a definite current directing small organisms into the capacious mouth.

The mouth leads into a funnel-shaped gullet, which is followed by a conspicuous stomach. Then follows the intestine, with diatoms in various stages of disintegration. There is a short rectum which opens at the anus at the base of the caudal appendage.

#### GENUS *Telepsarus*, COSTA.

*Telepsarus* sp. A single metatrochophore (Figs. 36 and 37) was captured in February 1930. The larva is of dirty brown colour, is very contractile. The head is rounded, without any characteristic pigmentation. The underlip is fleshy and broadly cleft in the middle. The two halves do not stretch beyond the anterior edge of the head. Two rudimentary tentacles are already present and just in front of the base of each tentacle is a streak of brownish obliquely disposed pigment representing the eye on each side.

There is only a single mesotrochal band of cilia encircling the body slightly behind the anterior half. In the anterior region there are already 9 pairs of uniramous parapodia. The setæ are simple and flattened. A single seta of the 4th bundle is very short and stout and is curiously modified.

Fig. 38 shows the fourth setigerous bundle drawn from a balsam preparation. There are four setæ. One of these is very stout and is the modified seta. The projecting end is slightly excavated with a wavy rim which is produced into a number of blunt projections. Of the other 3 setæ, two have lance-shaped ends. One of these lance setæ is very short and the other very long, of characteristic shape. The fourth seta is slightly longer than the long lance seta and is only moderately broad. The setæ in the other bundles of the region are all more or less broadened and lance-shaped, less

so generally in the anterior than in the hind segments. The broad lance-shaped setæ are very transparent and are difficult to make out. Behind the mesotrochal band there are a few branchial lobes which show indications of being cleft. The cilia on these branchial lobes are very active and are about half the length of the girdle cilia and about 4-6 times as long as the cilia which clothe the general body surface.

In the second division of the body 12-15 segments are present of which all, except the last two or three, carry chitinous comb plates.

The second division is terminated by a short caudal appendage which is one-fourth the length of this part. No sensory bristles are present either on the head or on the caudal appendage which however carries at its very end a patch of minute cilia. There is at first no flagellum at anterior end. It develops later.

The alimentary canal is very distinct and appears as an opaque tract and consists of an œsophagus, gizzard and a coiled intestine which is very dark with food contents and a short rectum which opens on the dorsal side at the base of the caudal process. Ten days later this form had not changed very much. It had undergone a slight elongation and the setigerous tufts of the anterior region have become more pronounced. But the most important change is the development of a single long stiff flagellum at the anterior end.

Chaetopterid larvæ have been described by many authors. The free swimming larva of Chaetopterus was first described by Müller under the name of Mesotrocha. Claparède and Mecznirow (1869) describe larvæ of *Telepsavus costarum*, Claparède, and *Phyllochætopterus socialis*, Claparède. The former larva has only one mesotrochal band and the latter two. Both possess a caudal appendage and uncigerous plates in the precaudal segments. The larva of *Telepsavus costarum* has two eyes while that of *Phyllochætopterus* six. Wilson (1882) describes in detail the very early stages of *Chaetopterus pergamentaceus*, Cuvier, and an advanced stage of *Spiochætopterus*, Sars. Fewkes (1883) has given an account of several stages of the larvæ of *Telepsavus* and *Phyllochætopterus*. He also mentions two eyes as occur-

ring in the former and six eye-spots and a long flagellum in the latter form.

Gravely (1909) describes the trochophore and metatrochophore of a *Chætopterus* from Port-Erin. His trochophore has at first one band and later acquires a second band of cilia and passes into the metatrochophore stage. The Madras form is apparently very much similar to the Port-Erin form but differs from it in not having a stiff cilium at the front end and in the under lips extending to the front rather late in development.

### FAMILY MAGELONIDÆ, CUNNINGHAM AND REMAGE.

Magelonids are small slender worms with two distinct body regions, a pair of long slender palps carrying papillæ at base. There is a well-developed pharynx. Parapodia are biramous with lamelliform dorsal and ventral cirri without branchiæ. Simple capillary setæ and hooded crochets only. Anal cirri are present. Mostly bottom dwellers. There is a prolonged pelagic larval period.

#### GENUS *Magelona*, MULLER.

Several *Nectosma* of *Magelona* of slightly different degrees of development have been obtained. Two of these stages will be described.

*Stage A.*—(Fig. 39). *Nectosoma*. Palps, when fully stretched, are one-third longer than body. Mouth is widely open. No cilia are present at this stage. Larva lies quietly at bottom of glass but moves by quick contractions of the body with the palps coiled up when disturbed. Prostomium triangular with the anterior end gently rounded. Both the palps are present at this stage and show the usual differentiation into a basal portion and a terminal larval part. The proximal part carries distinct fleshy papillæ on the anterior side of tentacle, and the distal a large number of stiff processes. Each tentacle is marked by two dark-coloured rings, dividing it into three almost equal parts. Two pairs of eyes are present. Middle pair larger and concave externally.

The anterior region of the body is formed of ten segments of which the first segment has a pair of tufts of long smooth

provisional setæ of 625  $\mu$  length. The next nine segments have also provisional capillaries in the dorsal and ventral tufts. These setæ are shorter than the provisional setæ of the first segment and those of the second segment are very small. Next follow 5 segments constituting a middle region. These are provided with smooth provisional capillaries. The posterior segments have crotchets only arranged in two groups, an upper and a lower. No caudal appendage can be made out. The anus is sub-terminal.

*Stage B.*—This had one complete tentacle only; its companion tentacle had lost its larval part. The basal part of the complete tentacle shows a few constrictions on its anterior side and is one-eighth the total length of tentacle; the terminal part is very slender and fully covered with stiff processes all round. There are four eyes, the anterior pair wide apart, the posterior nearer together.

The provisional setæ of the anterior segments (except those of 1st) have been lost and the permanent setæ have taken their place. Specimens with the larval parts of both the tentacles completely lost are often encountered and agree in respect of the characters of the setæ with the description above given. It is not rare to meet with worms without the larval parts of tentacles but with the provisional setæ fully retained. A comparison of a number of nectosoma larvæ leads one to the conclusion that there is a great variation in the following characters:—

- (a) The proportion the basal part bears to the larval part of the tentacle.
- (b) The time of shedding of the larval part in relation to the shedding of the provisional setæ.
- (c) The time of shedding of the provisional setæ of the 1st segment as compared with the shedding of the other provisional setæ.
- (d) The number of segments (9 or 10) constituting the front region and the number (4 or 5) forming the middle region.

Claparède (1869) has given a complete account of the larval stages of *Magelona*. The youngest larva is cylindrical. The mouth is wide and has a deeply cleft ventral lip. The provisional setæ of the 1st<sup>c</sup> segment are as long as the body.

In front of the bases of these setose tufts ciliary tufts are mentioned. The bristle bundles are connected by a ventral ciliary band. All the body segments, which, at this stage do not carry any setæ, have ventral bands of cilia except the last few.

Fewkes (1883) has also given a detailed account of the larval development under the name of *Prionospio tenuis*. Fewkes. Other descriptions mostly of one or two advanced stages have been given by McIntosh (1894) and by Hacker (1898).

Two mature specimens of *Magelona papillicornis* were obtained by me by dredging at 10 fathoms depth. The larval forms described evidently are the post larval stages of the same species.

#### FAMILY TEREHELLIDÆ, GRUBE.

Body consists of numerous segments grouped into a thoracic and an abdominal region. The thoracic region is more or less swollen and the parapodia have dorsal simple capillaries and ventral tori with uncini. Abdominal region is elongated, more or less slender, often without dorsal setæ and only carrying uncini. Prostomium, which is indistinctly separated from the peristomium, forms an upper lip and carries numerous non-retractile, filiform, canaliculate tentacles. Gills pectinate or otherwise, or wanting altogether. When present they are carried on the second to the fourth anterior segments. Paleæ absent. Dorsal setae are simple capillaries, often limbate. Ventral ramus in the form of a torus carrying uncini. Anus terminal. They are all tube dwellers. Tubes of mucus or of a membrane encrusted with debris, broken pieces of shell, etc.

#### GENUS *Loimia*, MALMGREN.

*Loimia medusa*, Sav—(Figs. 40, 41). Post larval stages of this Terebellid are very common in the plankton in the months of November and June. The larva is characterised by a gelatinous case which it uses as a house.

The creature is very transparent and most of the internal organs could easily be seen. There is very little pigment except on the tentacle and the upper lip. It is very

contractile and waves of contraction pass down the body of the larva. Often it leaves the case and takes to swimming which it does by movements reminding one of the larva of a culicine mosquito. It can also turn freely in its case and appears with the tentacles showing at either of the two ends.

Various stages were obtained and from an examination of these it is easy to see that the development is identical with that so admirably described by Wilson (1928).

The earliest stage observed agrees closely with the second stage figured by Wilson. At this stage there are four tentacles. They are all cylindrical and each is marked by three pigment rings placed at regular intervals. There are 11 pairs of bristle bundles. The statocysts are clearly seen as also the larval anterior nephridia. The internal organs are quite clear and the alimentary canal is in a state of constant movement. It is held in position by muscles passing to the body wall. The upper lip is conspicuous. The mouth is perfectly distinct and at the entrance to it there is a fleshy organ which is constantly exhibiting a sort of rolling activity and to this Wilson attributes the function of fashioning the tube. It has been called the buccal organ. The bristle bundles are constantly thrust out and pulled in. On the dorsal side of the larva there is a row of minute cilia for each segment, constituting the nototroch. There are at this stage 15-16 pairs of processes ventral to the bristle bundles, carrying uncini. The larva now develops an additional tentacle (5 in all) and one or two bristle bundles are added and at this stage the first gill appears immediately above the statocyst.

The next stage examined shows a greater number of segments. There are two pairs of branchiæ and the bristle bundles are now seventeen in number, followed by segments carrying uncini only. The processes carrying the uncini in the first segments have disappeared and their places have been taken by tori with uncini arranged in a single vertical row in front and in 2 rows behind. There is very little difference between the uncini of the front and those of the hind segments. The anal processes have appeared.

Often very advanced stages having three pairs of branchiæ are encountered. They are still with their gelatinous cases. Several are, however, without them. It is very diffi-

cult to determine whether at this stage the worms leave their case of their own accord or whether they have been forced out of them by waves. The two-gilled to the three-gilled condition was not followed in the laboratory but there is no doubt that development is on the same lines as those described by Wilson for this form.

### FAMILY CAPITELLIDÆ, GRUBE.

Slender bodied worms with a short anterior thoracic and a longer posterior abdominal region. Prostomium conical with no appendages. With or without eyes. Mouth ventral, pharynx unarmed. Buccal segment generally achætous. Parapodia biramous but not projecting beyond the body. Setigerous bundles of capillaries or crochets. Often with modified copulatory acicula. Mostly of creeping and burrowing habits. A typical trochophore stage absent.

### GENUS *Capitella*, BLAINVILLE.

*Capitella* sp.—(Fig. 42). Several larvæ in advanced stages of development were obtained in September 1929, also about the same time in 1930. They are never very numerous and it requires some care spotting them. The larva is very contractile. The prostomium is rounded. There are three pairs of reddish eyes placed one behind the other on the dorsal side of the prostomium. Prototroch and telotroch are quite well developed, the latter more so. Telotrochal cilia are arranged in several rows and all the cilia are turned backwards. The body is clearly divided into 18 segments of which 16 carry setæ. No cilia have been observed in the ventral side of the body rings. The alimentary canal which is of uniform width is quite plainly visible throughout and is filled with colourless globules probably of a fatty nature. General body colouration is not in any way noteworthy. There are however scattered yellow pigment granules throughout the body wall. The first 8-9 segments carry only capillary setæ, the next 2-3 capillaries and hooded crochets, the last few carry short crochets only (Fig. 43).

It was pointed out by Claparede (1869) that in the

development of *Capitella capitata* the first three segments at first form simple capillary setæ and the rest of the segments only hooks and the rest of the final setal characters are assumed only later. It seems therefore that the present form represents a fairly late stage in development. The general arrangement of the setæ however resembles that of the genus *Capitella* to which genus I must provisionally refer this form. Eising gives a good account of the development of *Capitella capitata* (1889).

#### FAMILY SABELLARIDÆ, JOHNSTONE.

This is a family of small worms in which the body is divisible into three distinct regions. The prostomium is indistinct and is placed between two large peduncles carrying peculiar setæ (paleæ) arranged in one to three rows. Mouth unarmed, generally surrounded by filiform tentacles or papillæ. Anterior region comprises 2 rudimentary segments with reduced parapodia carrying ventral capillary setæ only. Next 3-4 segments possess paddle-like or styliform setæ constituting the parathoracic region. Abdominal region with dorsal pectinate setæ and ventral capillaries. Simple branchiæ present on the thoracic and abdominal segments. A caudal region without segmentation and setæ. They are all tube dwellers. The free swimming pelagic larvæ are often beautifully coloured by chromatophores. There is a rapid metamorphosis after which the sedentary habit is assumed.

#### GENUS Sabellaria, LAMARCK.

*Sabellaria* sp.—Sabellarian larvæ are never very numerous in the Madras tow-net water. They are very small and it requires some care to detect and pick them out. They have a very graceful method of swimming with their long provisional setæ held close to the body.

A few metatrochophores were captured. Fig. 44 shows this fine larva. There is quite a broad anterior and a gradually narrowing body. Seven segments could be made out in front of the telotroch which has become well developed. While the front segments are separated by distinct grooves, the hind segments are marked by transverse rows of greenish

pigment spots. The prototroch consists of two rows of powerful cilia of which the cilia of the posterior row are only one-third as long as those of the anterior row. It is interrupted ventrally. Two pairs of eyes are present; of these the anterior are slightly the larger and in between several irregular chromatophores are present. In front there are a few short stiff cilia arranged in minute groups. The mouth is quite conspicuous on the ventral side and the lips are provided with powerful cilia. The upper lip is still provided with long cilia. The provisional setæ are mostly very slender, some fairly stout, all with wings. The setæ measure  $250\ \mu$ . Unfortunately observations of the next stages were not complete.

Just before the onset of metamorphosis the larva begins more and more to frequent the bottom. The assumption of a tubicolous habit is very rapid. An examination of a metamorphosed larva shows the following characters.

The worm has elongated. The tail has become bent underneath. The umbrella has become shrunk completely.

At the base of the setigerous sac 3-4 pointed spines have appeared and are visible when highly magnified. 3 parathoracic segments have appeared. Ventral bundle consists of 3 flattened setæ of which 1 is bayonet-like, the upper bundle of 3-4 setæ, all more elongated but less flattened than those of the ventral.

Abdominal segments 3, with 5, 3 and 3 uncini. Other details of development were not observed.

Though the larvæ of Spionidæ are easily recognised by the large provisional setæ on the 1st segment and a large ventral vestibular depression, considerable confusion has been caused by the close similarity of the early larval forms of *Polydora* and *Spio* on the one hand and the Sabellarian larvæ on the other. True Sabellarians have been described as belonging to *Polydora* and *Spio*. These facts have been clearly set forth by Wilson (1929) in his recent paper on the development of *Sabellaria spinulosa*.

The differential characters of the larvæ of Sabellaridae and Spionidæ are given by Caullery. (1914)

## ARCHIANNELIDA.

## FAMILY POLYGORDIDÆ, E. PERRIER.

A primitive group of slender worms belonging to a few genera. Body slender, cylindrical, with external segmentation indistinct. Ciliated organs may be present. Parapodia, if present, very rarely with setæ. Tail swollen or bifurcate. Hermaphrodite or with sexes separate; generally marine. Larvæ typical trochophores.

GENUS *Chætogordius*, MOORE

*Chætogordius* sp. On 15-11-29 and a second time on 19-12-29 (both rainy months) swarms of a peculiar kind of intensely green larvæ looking like those of Polychaets were noticed in tow-net water. On both occasions they continued to be common for about ten days after which they, as suddenly, disappeared only to reappear about the same time next year.

They were all metatrochophores and easily metamorphosed into young worms. The youngest larva (Fig. 45) is broad and rounded in front, narrow behind and measures 375  $\mu$  long and 250  $\mu$  broad at the broadest point. 12-15 segments could be observed. Prototroch and telotroch are well developed. The prototrochal ring seems to be composed of four rows. The cilia of the first row are best developed and are directed forwards and measured 45-50  $\mu$  long. The cilia of the middle two rows are rather coarse, project straight outwards and are not very active but are often seen to work independently. The cilia of the last row are shorter than those of the first and are directed backwards. The cilia of the telotroch are coarse, more like flat bristles and when stretched backwards do not quite reach the posterior end.

A pair of eyes are present close to the anterior end.

The larva is very contractile and swims with a curious jerky movement. Often, the part of the body in front of prototroch is withdrawn into the succeeding part and then slowly pushed out. The pharynx is clear and leads into a broad stomach filled with nutrient globules. The stomach

leads into a short intestine which opens at the anus situated between two lobes.

In the contracted state of the larva, setæ cannot be made out but when the larva stretches itself out (Fig. 46) after the manner of a leech, the setæ, which are normally deeply imbedded in the body wall, are pushed out and can then be easily made out. There are no parapodial projections of any kind and there are three setæ in each bundle (Fig. 47). Of these one is more slender than the other two and projects beyond the others which are short and broad. All the setæ are peculiar in having their distal portion distinctly channelled.

The larva grows rapidly and new segments are rapidly added. The distinction between pharynx and stomach is yet more pronounced. The intense green colour of the body (Fig. 48) in general, and in the stomach and intestine in particular, still persists. A pair of tentacle rudiments have commenced to form but they seem to be so delicate at this stage that they appear more as a fold than otherwise. There is as yet no change in the ciliary apparatus. The larva now measures 1,600  $\mu$  long and 620  $\mu$  broad and possesses twenty-three to twenty-four segments (Fig. 49). The tentacles rapidly grow longer.

Further development is still more rapid. The loss of cilia is accomplished quickly; the tentacles now present a jointed appearance. The larva has now the form shown in Fig. 50. It has ceased to swim and has taken to groping at the bottom of the glass. In this condition the body measures 1500  $\mu$  long and 125  $\mu$  broad and the tentacles measure 935  $\mu$  long.

A larva similar to that depicted in Fig. 45 was described by Milne-Edwards (1844) as an *Amphinome*. Claparede and Mecznirow (1869) give an account of a similar larva from the Crimean coast and described it under 'unbestimate Spioniden larven'. Later St. Joseph describes and figures a very similar larva and refers it to *Saccocirrus papillocercus*. There is a very great similarity between the present form and that figured by St. Joseph but they cannot be identical. His figure shows four eyes and fairly distinct lower lips. He also shows a pair of 'fossettes' behind the anterior cilia. These 'fossettes' are absent in the present form. There is however

great similarity in the setæ. But in the young worm of the present form there are no parapodial projections at all. It cannot therefore belong to *Saccocirrus*. Very probably it belongs to *Chætogordius* (Moore). It is not however *Chætogordius canaliculatus* as in the Madras form setæ are present in all the segments.

## LIST OF FIGURES.

*Plate I.*

1. Phyllodocid A  $\times 125$
2. Phyllodocid B  $\times 125$
3. Nectochæta B  $\times 125$
4. Nephthys  $\times 125$
5. Nectochæta of Nephthys
6. Slightly older larva.
7. Nectochæta with ten parapodia.
8. A very young Nephthys—slightly pressed under the cover slip.
9. Eunicid A  $\times 40$
10. Nectochæta with ten pairs of parapodia  $\times 40$
11. First foot of worm with five setigers.  $\times 200$

*Plate II.*

12. Eunicid A. with five setigers.  $\times 40$
13. Eunicid B. Atrochal stage.  $\times 40$
14. Eunicid B. slightly later stage with two broad bands of cilia.  $\times 40$
15. Young Nectochæta. Eunicid B.  $\times 40$
16. First foot of Nectochæta before setæ become jointed  $\times 200$
17. Second foot of the same.  $\times 200$
18. Young worm with six setigers and all tentacles formed  $\times 50$
19. Head of a more grown up worm, with tentacles fully formed.  $\times 50$ .
20. Jointed setæ from an anterior segment.
21. Young larva of Glycera.
22. The same with Coscinodiscus.
23. A fully grown larva of Eone.  $\times 20$
24. The same, proboscis shot out.

*Plate III.*

25. Chætosphæra A, side view.
26. The same ventral view—all setæ not shown.
27. Straight bristled seta of Chætosphæra<sup>3</sup> A  $\times 50$  ,

28. A capillary seta from the dorsal bundle.  $\times 200$
29. A crotchet of *Chætosphæra* A from a middle segment.
30. *Chætosphæra* B. curved setæ alone shown.
31. Crotchet seta from a posterior segment of *Chætosphæra* B.  $\times 200$
32. *Chætopterus* sp. slightly extended. Ventral view  $\times 30$
33. *Chætopterus* sp. contracted condition.  $\times 30$
34. *Chætopterus* sp. Dorsal view.  $\times 30$

*Plate IV.*

35. The setæ of *Chætopterus* sp. 4th parapodial setæ not shown. From a balsam preparation.  $\times 200$
36. *Telepsavus* sp. Dorsal view.
37. *Telepsavus* sp. Side view.
38. Fourth parapodium of *Telepsavus*. Balsam preparation.  $\times 200$
39. Anterior end of *Magelona papillicornis*. Ventral view. A single pair of eyes alone visible from this side.
40. *Loimia* medusa; contracted state; slightly diagrammatic.
41. The same in 'house'.
42. *Capitella* sp.
43. The setæ of *Capitella* sp.

*Plate V.*

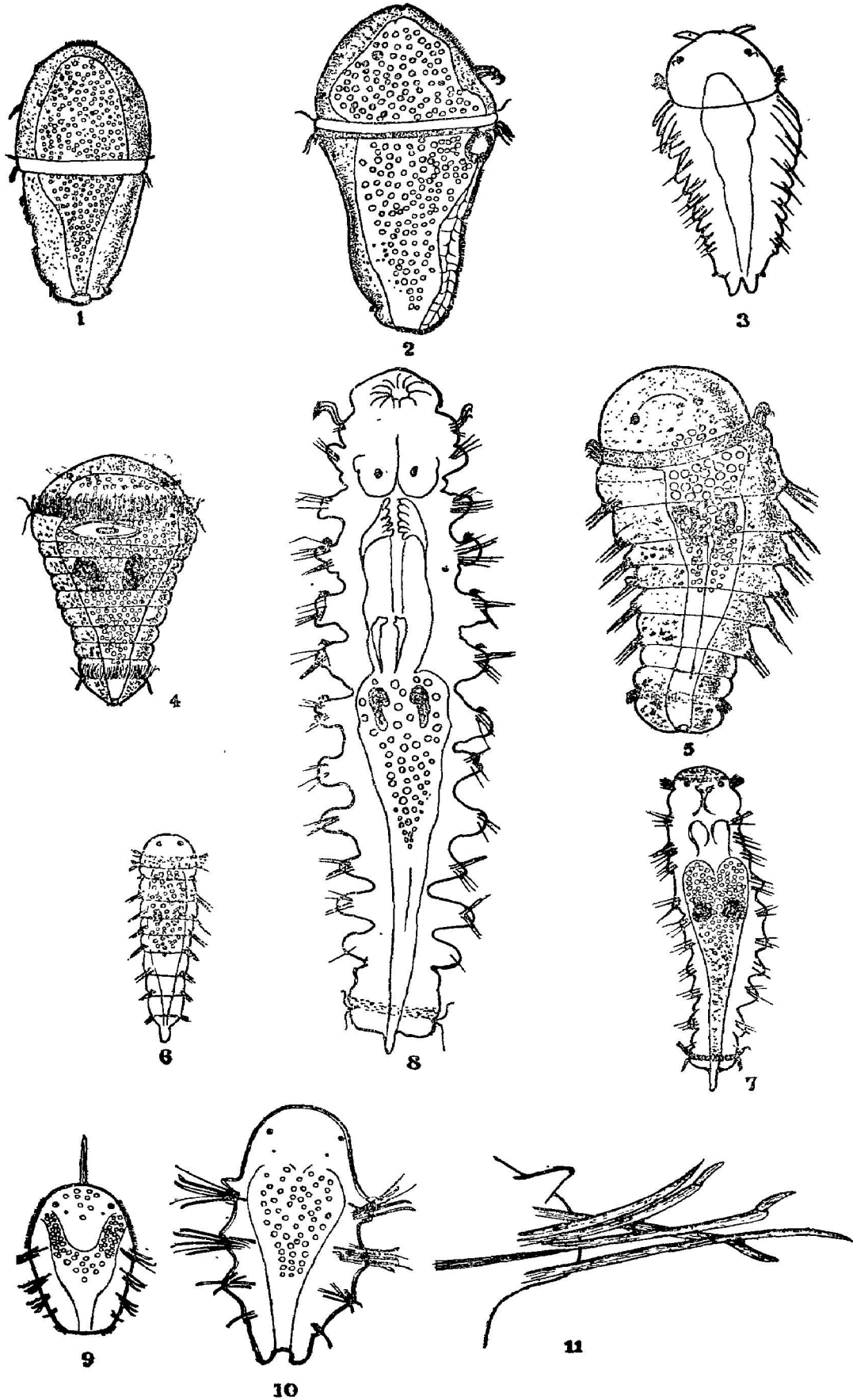
44. Larva of *Sabellaria* sp.  $\times 100$
45. *Chætogordius*; early stage.  $\times 40$
46. The same slightly extended.  $\times 40$
47. Setæ from two adjacent segments.  $\times 200$
48. Three segments to show pigmentation.
49. Later stage.
50. Young worm.  $\times 100$

## BIBLIOGRAPHY.

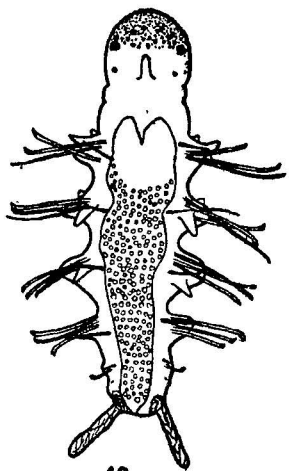
- 1844- Milne Edwards ... "Development of Annelids." *Ann. des. Mag. Nat. Hist. Ser. 3.*  
45
- 1867 Agassiz, A. ... "On the young stages of a few Annelids." *Ann. Lyceum Nat. Hist. N. Y.* vol. VIII.
- 1868 Claparede, E. ... "Annelides Chetopods du Golf de Naples." *Men. Soc. Phys. Genève* XIX.
- 1869 Claparede et Meczников ... "Beitrage Zur Kenntniss der Entwicklungsgeschichte der Chaetopoden," *Zeit. Wiss. Zool., Leipzig*, XIX.
- 1869 McIntosh, W. C. ... "On the early stages of the development of *Phyllodoce maculata*." *Ann and Mag. of Nat. Hist. Ser. 4*, Vol. IV.
- 1878 McIntosh, W. C. ... "Beitrage Zur Anatomie von *Mage-lona*." *Zeit. Wiss. Zool.* XXXI.
- 1879 Webster ... *Trans. Albany Inst.* IX.
- 1880 Wilson, E. B. ... "Preliminary abstract of observations upon the early stages of some Polychaetous Annchids." *Zool. Anz.* 3, 1880.
- 1882 Wilson, E. B. ... "Studies in the early stages of Polychaete larvae." *Studies, John Hopkins Univ. Balt.* II 1882.
- 1883 Fewkes, J. W. ... "Development of some worm larvae." *Bull. Mus. Comp. Zool. Harvard College*, XI, No. 9.
- 1886 De St. Joseph ... "Les Annélides Polychètes des Cotes de Dinard." *Ann. Sc. Nat. Zool. Ser. (7)* 1.
- 1888 De St. Joseph ... "Les Annélides Polychètes des Cotes de Dinard." *Seconde partie Ann. Sc. Nat. Zool. Ser. (7) Zool.*, 1888. (Euniciden larvae, Ophryotrocha).
- 1889 Eisig, H. ... *Zur Entwicklungsgeschichte der Capitelli den Mitt. Zool. Sta. Neapel* Bd. 13.

- 1893 Braem, F ... "Zur Entwicklung von *Ophryotrocha peurillis*." *Zeit. Wiss. Zool.* VII Leipzig.
- 1893 Benham, W. B. ... "Post larval stage of *Arenicola marina*." *Jour. Mar. Biol. Assoc.* (II) Vol. 3.
- 1893 Korschelt, E. ... "Über *Ophryotrocha peurilis* und die polytrochen larven eines andern Anneliden." *Zeit. Wiss. Zool.* LVII.
- 1893 Beraneck, Ed. ... "Quelques stades Larvaires D'un Chétoptere." *Revue Suisse. Zool.* T. 2. 1894.
- 1894 McIntosh, W. C. ... "A contribution to the knowledge of Annelids." *Q. J. M. S. n. s.* XXXVI.
- 1894 De Saint Joseph ... "Les Annélides Polychètes des Cotes de Dinard." Part III *Ann. Sc. Nat. Zool.* (7) XVII. 1894.
- 1895 De Saint Joseph ... "Les Annélides Polychètes des Cotes de Dinard." Part IV *Ann. Sc. Nat. Zool.* (7) XX 1895. (Polynoinen and Nectochaeta).
- 1896 Hacker V. ... "Pelagische Polychetan larven." *Zeit. Wiss. Zool.* LXII.
- 1898 Hacker, V. ... "Die pelagischen Polychaeten-larven." *Ergebnisse der Plankton Expedition Bd. II* Kiel and Leipzig.
- 1900 McIntosh, W. C. ... Monograph of British Annelids. Pt. II. Amphinomidae—Sigalionidae. Roy. Soc., London.
- 1900 Borradaile, L. A. ... "On the spawn and young of a Polychète Worm of the genus *Marphysa*." *P. Z. S., Lond.*
- 1901 Goodrich, E. S. ... "On the structure and affinities of *Saccocirrus*." *Q.J.M.S.* XLVI. 1901.
- 1903 Leschke, M. ... "Beitrage zur Kenntniss der pelagischen Polychetan larven der Kieler Fohrde." *Wiss. meer Untersuch.* Neuefolge VII, Kiel.
- 1904 Moore, J. P. ... *American Naturalist* Vol. XXXVIII.

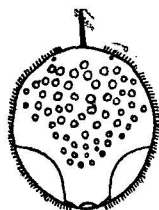
- 1904 Goodrich, E. S. ... "*Nerilla*, an Archiannelid" *Q.J.M.S.* Vol. LVII.
- 1908 McIntosh, W. C. ... A monograph on British Annelids, Vol. III, Part I Nephthyidae—Syllidae. Roy. Soc., London.
- 1909 Gravely, F. H. ... "Studies on Polychaete Larvae," *Q.J.M.S.* (N.S.)
- 1909 Gravely, F. H. ... Polychaete Larvae. L.M.B.C.
- 1910 Fuchs, H. M. ... "Notes on the early larvae of *Nephthys* and *Glycera*." *Jour. Mar. Biol. Assn.* IX. N.S.
- 1914 Caullery, M. ... "Sur les Formes Larvaires des Annélides de la Famille des Sabellariens (Hermelliens)" *Bull. Soc. Zool. de France* T. XXXIX.
- 1923 Gravier, C. ... "La ponte et l'incubation chez les Annélides Polychètes." *Ann. der Nat. Zool.* Ser. 10 T. VI.
- 1923 Herdman, W. A. ... "Founders of Oceanography" Lond.
- 1926 Herpin, R. ... "Recherches biologiques sur la reproduction et le développement de quelques Annélides Polychètes." *Bull. Soc. Sc. Nat. de la France.* 4th ser.
- 1927 Fauvel, P. ... Fauna de France. Polychètes sédentaires.
- 1928 Wilson, D. P. ... "Post larval development of *Loimia medusa*." *Jour. Mar. Biol. Assoc.* Vol. XV. No. 1.
- 1928 ————— ... "Larva of *Polydora ciliata* and *P. hoplura*." *Jour. Mar. Biol. Assoc.* Vol. XV.
- 1929 ————— ... "Larvae of British Sabellarians." *Jour. Mar. Biol. Assoc.* Vol. XVI. No. 1.
- 1931 Aiyer, R. G. ... Development and breeding habits of a brackish water Polychaete worm, *Marphysa*, Madras. *Jour. Linn. Soc.* 1931.



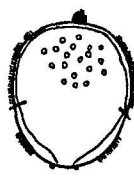
9-MAR 1933



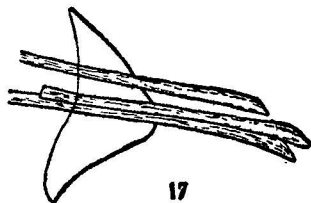
12



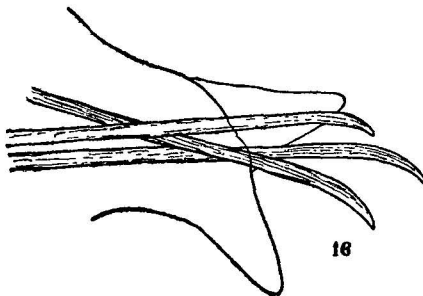
13



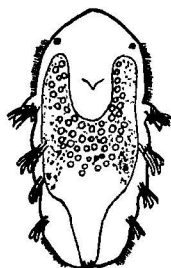
14



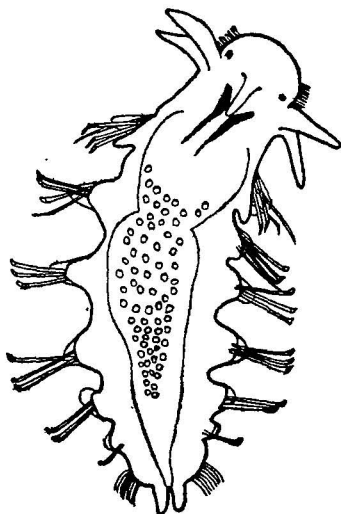
17



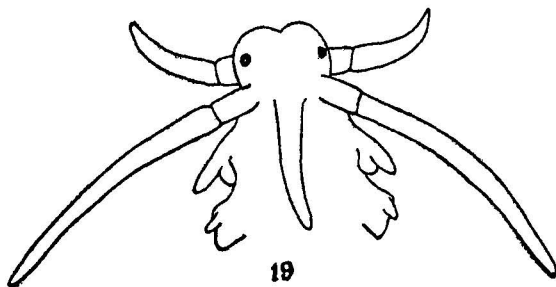
16



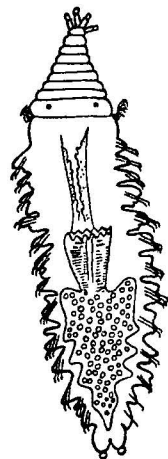
15



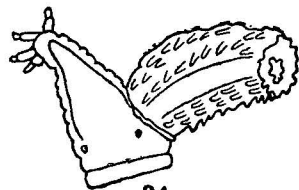
18



19



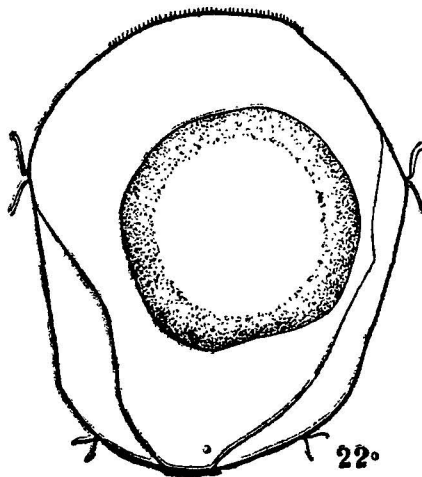
23



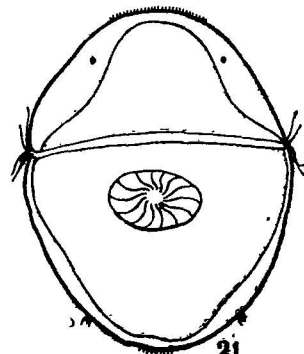
24



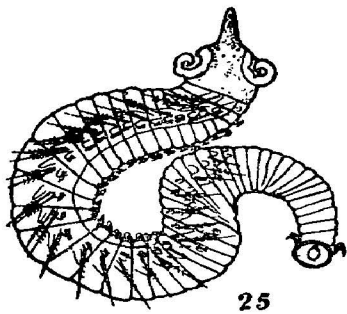
20



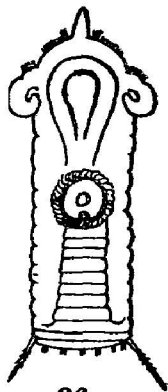
22



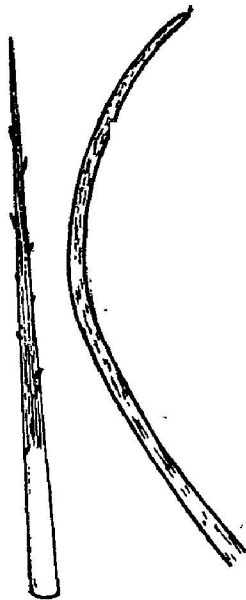
21



25



26

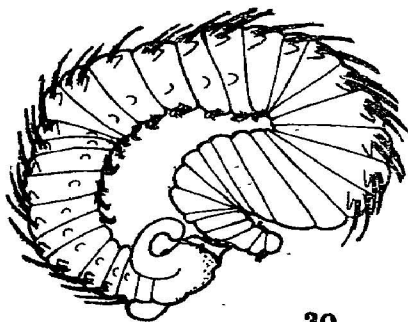


27

28



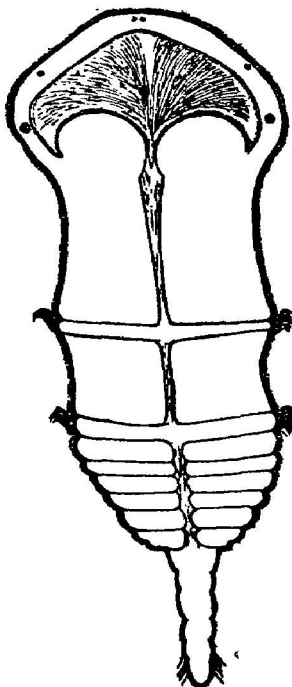
29



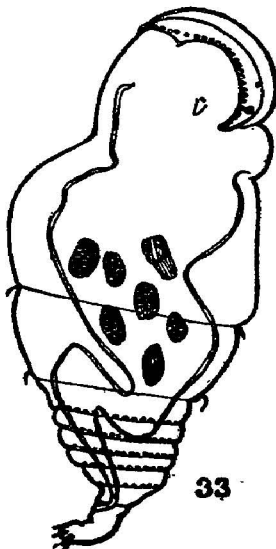
30



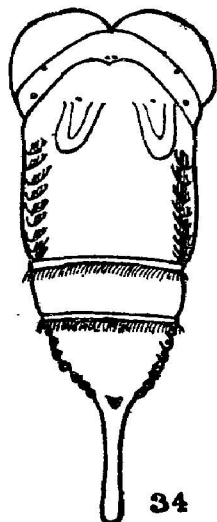
31



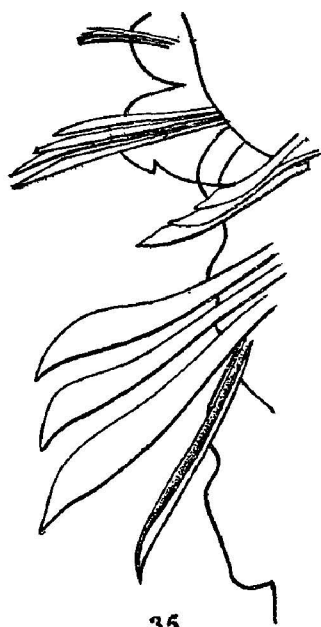
32



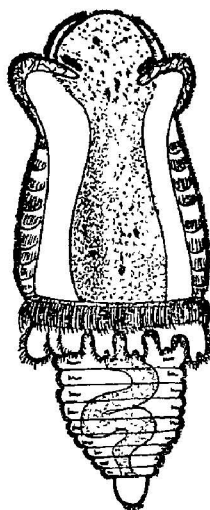
33



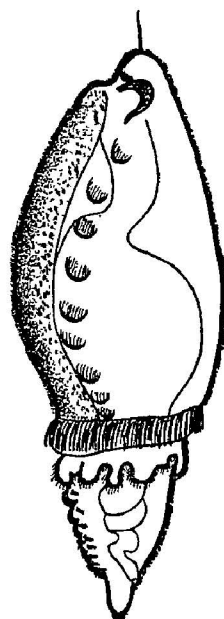
34



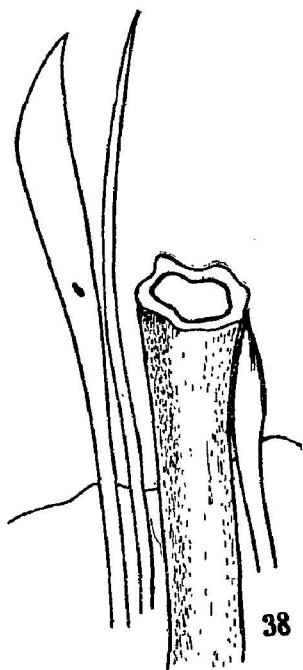
35



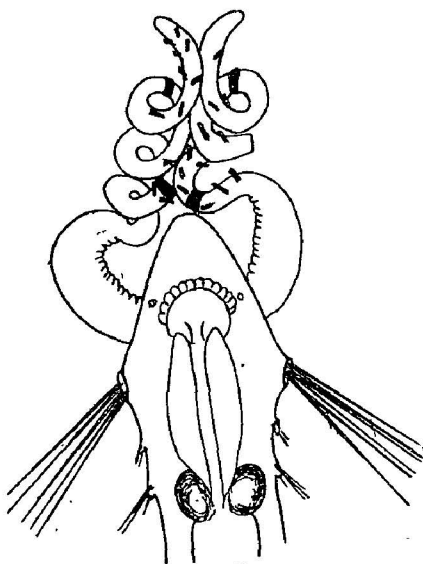
36



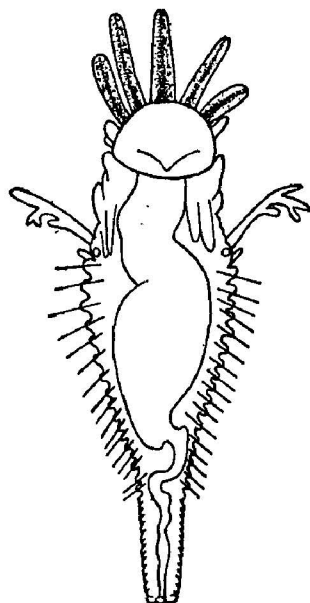
37



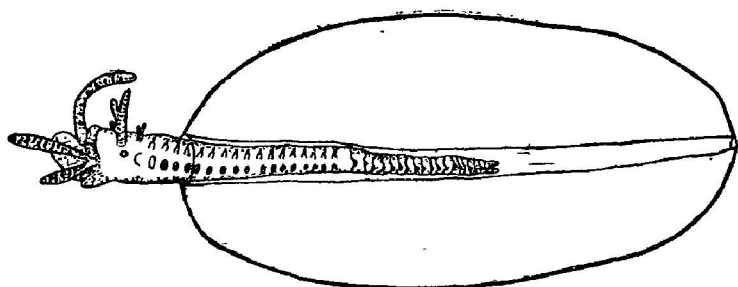
38



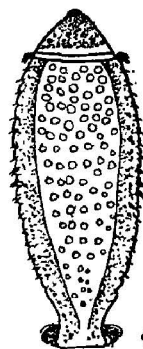
39



40



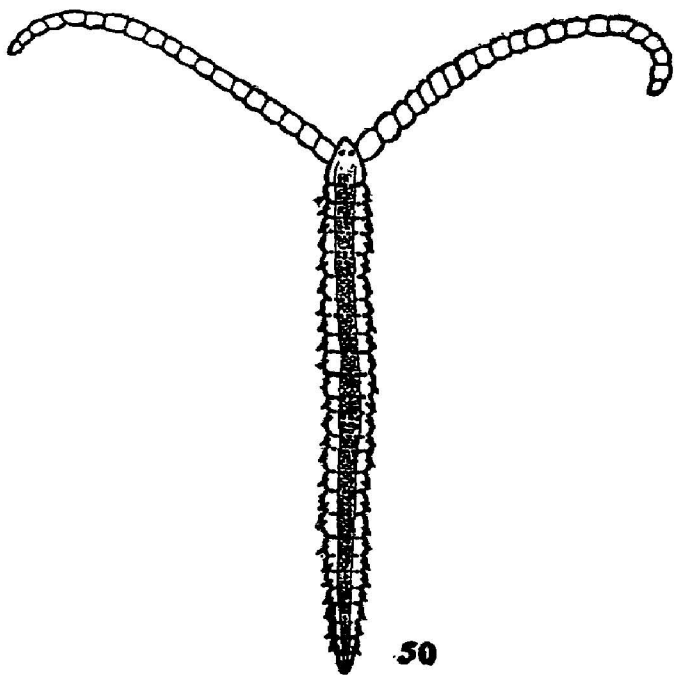
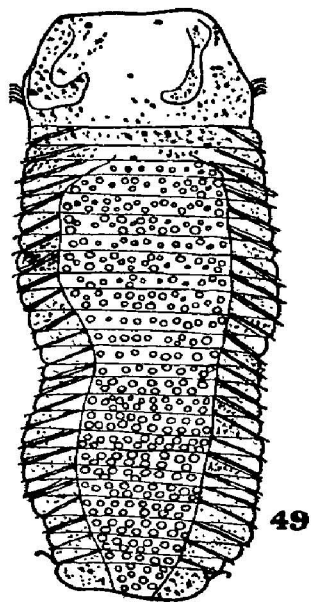
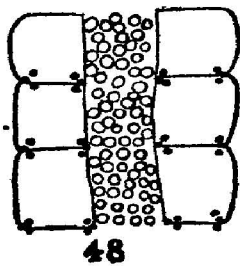
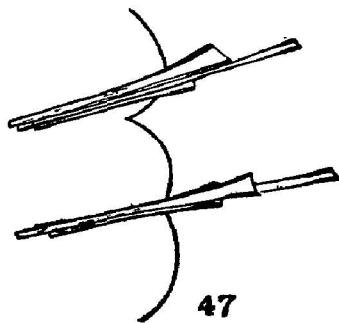
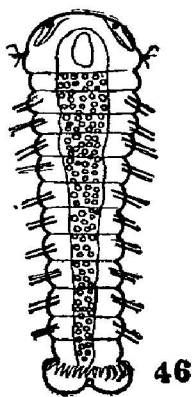
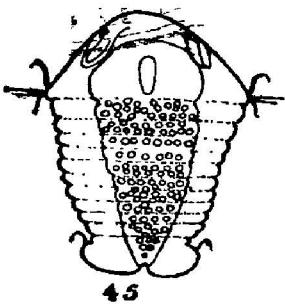
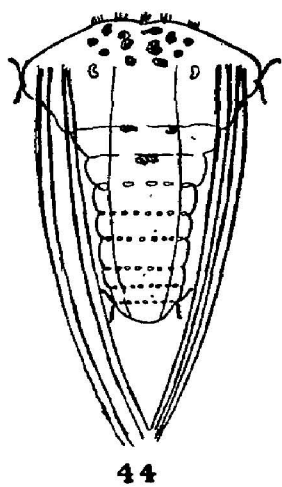
41



42



43



## UNIVERSITY NOTES

Diwan Bahadur Sir K. Ramunni Menon, *Kt.*, M.A.  
(Cantab).

The honour which has been bestowed upon our Vice-Chancellor, Sir K. Ramunni Menon, M.A., is an honour which we consider not only bestowed upon Sir Ramunni, but also upon the University of Madras of which he is the chief executive officer. It is customary in the Universities of the West for the King to honour the Vice-Chancellor by conferring the knighthood, and it has been a matter of some surprise that India has been so slow in receiving such recognition, but the recognition even at this stage is none the less welcome.

To Sir Ramunni belongs the distinction of being the first Vice-Chancellor to be knighted under the new constitution of the Madras University, and it is a signal tribute to one who has sought the lesser shades and has throughout a life of considerable educational activity studiously avoided the lime-light that the honour now conferred upon him should come during his year of Chairmanship of the Inter-University Board in this country and when still occupying the office of Vice-Chancellor in a University which has shown a very large development on its research side since the passing of the Madras University Act of 1923.

His urbane manner, his capacity for long and sustained work and his keen sense of duty have earned for him a respect and consideration not shown to many; and one feels that although he may now be privileged to be no longer addressed as an ordinary man, he will always remain a gentleman.

Our appreciation is none the less sincere in knowing that there are still years of ripening usefulness lying before Sir Ramunni and that Education and particularly University Education will obtain his wise counsel in the days of development that lie ahead.

Madras University is passing through a period of great expansion and its many schemes of development will receive

able and cautious guidance from one who during his long connection with the University has gathered round his name a reputation for financial ability and grasp of detail.

W. M.

LATE REV. WILLIAM MESTON, M.A., D.D., D.Litt.

*De Mortuis Nil Nisi Bonum*

By the sudden death of Dr. Willian Meston on the 12th January 1933 at his residence in Edinburgh, death has removed one of the ablest educational administrators and a lovable personality. Willian Meston spent a long career of over 30 years in the service of Indian education and in like manner as his distinguished brother gave his unstinted services to this country so gave he unselfishly of his best. The son of James Meston, the Registrar of old Aberdeen, Dr. W. Meston received his early education at the Grammar School in that city, graduating later, at Aberdeen University, with First Class Honours in Philosophy, and it was as Professor of Philosophy that he made his début as a Professor at the Christian College, Madras, and he still retained a keen interest in that subject especially Psychology—even when in after years he was teaching the subject of English in the Madras Christian College. He was Principal of the Madras Christian College from 1923-1928, and served as member of the Academic Council, Syndicate and Senate of this University. It was during his term of office as Principal that the scheme of transferring the Madras Christian College to Tambaram as a residential college was launched and he lived sufficiently long to see the work of building the science block of the new buildings at Tambaram commence.

He had a wide grasp of educational problems and was an authority on elementary education and its many problems in India. His sound common sense, ability for quick despatch of business and in getting to the heart of a problem together with his rare sense of humour will ever be remembered by those who came in contact with him in University affairs. His hearty laugh, unrestrained and boyish, brightened many a dull sitting. But perhaps he will best be remembered for his sincerity and deep interest in this country. He remained at

all times 'a friend of India', and left it his best in 1928 when he knew that India had taken its toll of a life ungrudgingly spent in its service and that there lay before him, at the most, only a few more years in a cooler clime. The heart affection which compelled him to leave India in 1928 compelled him to spend his remaining days in retirement, but through correspondence—and he was a strenuous correspondent—he kept up and showed that he still had a deep interest in Indian affairs. Madras University is the poorer for his loss and our sympathy goes out to his devoted wife.

W. M.

#### NEW APPOINTMENTS

We are glad to announce that Professor R. Gopala Ayyar, M.A., M.Sc., L.T., and Dr. M. Damodaran, M.A., M.Sc., D.Sc., F.I.C. have been appointed Directors, respectively, of the new Zoological and Biochemical Laboratories. Mr. Gopala Ayyar was hitherto Honorary Reader in Zoology, and now becomes Professor. We wish them both many years of useful work in the University.

The following gentlemen who have been lecturing on the subjects noted against each have been reappointed for the academic year 1933-34 :—

Geography.—Mr. George Kuriyan, B.A., B.L., B.Sc. (London), Lecturer.

Indian Music.—Vidwan K. Varadachariya, Lecturer.

Mr. Parur Sundaram Aiyar, Violin Asstt. Mr. Udaya Varma Raja, Veena Asstt.

#### PUBLICATIONS

The following publications have been recently issued :—

1. *Mauryan Polity* (University Historical Series No. VIII) by Mr. V. R. R. Dikshitar.
2. *The Historical Inscriptions of Southern India and Outlines of Political History* by Robert Sewell (University Historical Series No. V) edited for the University by Rao Bahadur Dr. S. Krishna-swami Ayyangar.
3. *Studies in Cola History* by Mr. K. A. Nilakanta Sastri (Historical Series No. VII)

4. *New Light on Fundamental Problems* by Mr. T. V. Seshagiri Rao Nayudu (Ph.D. Thesis).
5. *The Chronology of the Early Tamils* by Mr. K. N. Sivaraja Pillai.

The Syndicate has also sanctioned the publication as Bulletins of the Departments of the University the following works of Research Students :—

1. Botany Department :—

- 'The Studies on Isoetes Coromandelina L', by the Director and Mr. T. N. Venkatanathan.
- 'On the effects of poisons and other substances on absorption of water and transpiration in cut roots', by the Director and Mr. I. Madhusudhana Rao.

2. Indian History Department :—

- 'Some aspects of Vayupurana' by Mr. V. R. R. Dikshitar.
- 'Prataparudra of Warangal' by Mr. M. Rama Rao.
- 'Mody Manuscripts in the Saraswathi Mahal Library, Tanjore' by Mr. R. S. Shelvankar.

3. Indian Economics Department :—

- 'Handloom Weaving in South India' by Mr. K. S. Venkataraman.
- 'Rural Credits in Chingleput' by G. Gopala Rao.

### UNIVERSITY EXTENSION LECTURES

The Syndicate has constituted University Extension Boards to arrange for popular and extension lectures in Madras and in important mofussil centres. Such Boards have been constituted at Madras, Trichinopoly, Madura, Trivandrum, Ernakulam and Mangalore. Courses of lectures have been arranged and in some places several lectures have already been delivered. The Madras Committee has drawn up a formidable course of lectures, and some of them are by administrators of standing.

### UNIVERSITY STUDENTS' UNION

The University has opened from the 1st November 1932 a 'University Students' Union' with a view to promoting the

social, literary and athletic activities of the students of the University. Arrangements have been made for indoor and outdoor games.

#### ENDOWMENTS

The Syndicate has accepted the following endowments :—

- (1) From the Hon. Diwan Bahadur G. Narayanaswami Chettiyar for founding a prize in the name of Eric Conran Smith, I.C.S., to be awarded to the candidate who stands first among the successful candidates of the year who qualify for the B.A. Degree in History and Economics (Group IV-A).
- (2) From the Secretary, Hemingway Memorial Committee, Madras, for founding a scholarship in the name of Mr. F. R. Hemingway (I.C.S.), who was for a long time Registrar of Co-operative Societies, Madras, to be awarded to the candidate who, after passing the Intermediate Examination, proceeds to study for the B.A. Degree in Group (IV-B) Economics and History.

SENATE HOUSE,  
8th December, 1932.

## REVIEWS

**THE LAW OF TORTS** by S. Ramaswamy Iyer, B.A., B.L., with a preface by Sir William Holdsworth, Butterworth & Co. (1932).

It is a long time since a text book so useful as this has been published in India. Lecturers and students in colleges know only too well the vast mass of law books that come out every year particularly north of the Vindhyas, for making the work of the students easy. Writers of such books cannot be unaware of the great harm they are doing to the proper study of the law. Lecturers know that advice against the study of such books by itself is futile. The only effective way of combating this is by putting in the hands of students books written by eminent men for the use of students of law. Very few students use cram books for the study of the law of contracts mainly because an excellent text book like Anson's Law of Contracts is available. It is not at all improbable that Mr. Ramaswami Iyer's book will occupy a somewhat similar place with regard to the Law of Torts at any rate in this country. Even though it is hardly six months since the book was published, it is already deservedly popular particularly since it has received the imprimatur of the University.

Text-books written by persons who have had experience of lecturing to students and of appreciating the difficulty which students and lecturers feel in understanding and explaining the main principles of any branch of the law, have a special value of their own. Mr. Ramaswami Iyer has had this experience and every chapter of his book indicates the advantage of that experience. Two special features of this book so far as Indian students are concerned are noticeable. Wherever necessary the writer has given a brief summary of the history of the evolution of a principle or rule of law: this is very useful to Indian students who are not generally required to study the history of English Law. He has also attempted to consider the growing mass of Indian cases on this subject.

Looking at the author's preface after reading the book, one cannot help feeling that he might have acknowledged the debt which every student of law owes to such famous text books on the subject as those of Salmond and Pollock. Indeed with regard to the arrangement of the Chapters it looks as if the author was actuated more by a desire to make his book strikingly different from others than by a consideration for the needs of the students or the requirements of the subject. One can think of no other reason for making the chapter dealing with principles of liability the 13th one in the book. Chapters 13 to 15 ought to come immediately after chapter 1, in which case a great deal of what is contained in these chapters need not be repeated while dealing with specific wrongs. It also appears to be inartistic to put the chapter dealing with wrongs to Moveable property between those concerning Immoveable property and Nuisance.

S. GOVINDARAJULU.

MAHABARATHA (Southern Recension). Critically Edited by Professor P. P. S. Sastri, M.A. (Oxon.), Vols. I, II, III, VI & VII; Price Rs. 4 per Volume. V. Ramaswamy Sastrulu & Sons, Madras.

The Southern Recension of the Mahabharata has long been known to scholars, but no authoritative edition of the same has been available so far, though Dr. Winternitz projected an edition as early as 1898 and published some preliminary studies in the *Indian Antiquary* for that year. The Kumbakonam edition (1906-1910), though professing to be mainly based on South Indian Mss., is remarkable only for its comprehensiveness, mixing together, as it does, both Northern and Southern Recensions. A critical edition of the latter having long been a necessity, the present venture deserves hearty welcome and encouragement. Those who see the five handsome volumes before us will realise both the magnitude of the task and the way in which it has been growing in the hands of the learned and capable Editor. Prof. Sastri makes out a strong case in his scholarly introductions for considering the Southern Recension as more ancient and authentic, and probably nearer to Vyasa's original version. Even those who may not go the whole way with him cannot

but grant the force of his arguments. The tradition of European scholarship posits three stages in the development of this epic, from a stage of 8,800 verses through one of 24,000 verses to the present stage of nearly 100,000 verses. Against this has to be set the almost continuous Indian tradition dating from the earliest times (as shown in the Introduction of Vol. II) that the work always contained 100,000 verses. The support Prof. Sastri gains for his position from such very different sources as Dion Chrysostom, Nannayya and Vadiraja (the earliest known commentator on the Mahabharata) is, to say the least, striking. The belief that the fuller version is always the later and the less trustworthy has too long exercised the minds of Indologists; it is surely high time this myth is exploded.

In constituting the text, the sound principle has been followed of conformity to what appears to be the most reliable manuscript while giving all notable variants; this is more satisfactory than conjectural reconstruction. Detailed tables of contents, elaborate indices and a concordance exhibiting the additions and omissions differentiating the two recensions are a few of the noteworthy features, which make the edition valuable to the scholar.

The rapidity with which these five volumes have come out augurs well for the early completion of the work. The publishers deserve to be congratulated on the excellence of the get-up, as well as their enthusiasm in these days of depression. It is to be earnestly hoped that their venture will be justified by a full measure of patronage from scholars and libraries.

S. S. S.

VOCATIONAL EDUCATION, by N. S. Subba Rao, M.A., (Cantab.), Bar.-at-law, Director of Public Instruction, Mysore, pp. 62.

This nice little book is a reprint of the interesting papers recently contributed by the author to the Educational Supplement of the 'Hindu'. The subject is one of exceptional interest to economists as well as to educationalists, and it is but meet that an economist who is also an educational administrator should deal with it. Although Mr. Subba Rao wants

his little book to serve merely 'as a starting point for further discussion on the subject' and calls it merely, 'notes' (p. 59), we may assure him that he has not only stated the problem but has tackled it on right lines. It is also noteworthy that vocational education is dealt with in the book as a part of the question of Economic Planning, to which the author is now giving attention.

**SHAKESPEARE CRITICISM** from the Beginnings to 1765 by Professor V. K. Ayappan Pillay, B.A. (Oxon.). Blackie & Sons, 1933.

We are glad to note that Blackie & Sons have published the six University lectures delivered by Professor Ayappan Pillai, and published serially in the Journal. 'Professor Pillai has made a procession of critics pass vividly before our eyes: a procession including honest Ben Jonson, Milton, Dryden, the egregious Rymer, Addison, and Steel, Pope, Theobald, Warton, Gray, and Samuel Johnson.'

**GAUTAMA BUDDHA**, by N. K. Venkateswaran, M.A., L. T., Trivandrum. The Educational Publicity Co., Francis Joseph Street, Madras. pp. 73.

This is an exceptionally interesting study of the life of one of the world's greatest thinkers. Gautama's story has been told by numerous writers, but few of them are written in such an attractive style.

**HANDBOOK OF STUDY AND TRAVEL** for Indian Students going Abroad. Compiled for International Student Service by P. D. Ranganadhan, B.A., Secretary (I.S.S), for Indian Students abroad, with an introduction by Harold J. Laski, M.A., Professor, London University. Association Press, Y.M.C.A., Calcutta.

In this book, the author has collected together valuable information about universities in Great Britain, Ireland, France, Germany, Italy, Switzerland, Austria, and the United States of America. Such information is now hardly accessible without much laborious searching through university calendars and handbooks, many of which are not available in India. Not only does Mr. Ranganadhan supply information about studies, but he gives valuable hints about sports,

travel, and other activities connected with student life. He insists on Indian students going abroad with a specific objective and not merely for the vague purpose of 'research' or just another degree. Otherwise, they will waste their own time, their teachers' time, and their parents' money. The introductory note by Prof. Laski is valuable as he is one who, as he says, 'recognizes no boundaries to the community of international scholarship'. The book deserves to be in the hands of all students who propose to go abroad.

AN OUTLINE OF ECONOMIC THEORY by R. M. Joshi, M.A., B.Sc., I.E.S. (Professor, Sydenham College of Commerce), pp. 112.

This is a reprint of 7 lectures delivered by the author to the members of the Indian Institute of Bankers, at Bombay. The author says: 'I have deliberately called the book AN OUTLINE OF ECONOMIC THEORY. It is not a synopsis. It is not a cram book for examination purposes. It is, of course, not a text-book on the subject. It just claims to be an outline of it.' Mr. Joshi has a vigorous style both in writing and speaking, and his *Outline* is a suitable book for beginners in Economics. We wish it were longer and fuller, and we hope that it would become such in the next edition.

### ACKNOWLEDGMENTS

1. *A Primer of Indian Logic*, by Mahamahopadhyaya S. Kuppaswami Sastri. P. Varadachari & Co.
2. *Mauryan Polity*, by V. R. R. Dikshitar, M.A. (Madras University).
3. *The Historical Inscriptions of S. India*, by Robert Sewell, edited by Dr. S. Krishnaswami Aiyangar (Madras University).
4. *Studies in Cola History*, by K. A. Nilakanta Sastri (Madras University).
5. *New Light on Fundamental Problems*, by T. V. Seshagiri Rao (Madras University).
6. *The Chronology of Early Tamils*, by Mr. K. N. Sivaraja Pillai (Madras University).
7. *Education and the Spirit of Man*, by Francis E. Pollard (George Allen & Unwin).
8. *An Idealist View of Life* (George Allen & Unwin).

### EXCHANGES

1. *Cambridge Economic Bulletin*, Nov. 1932.
2. *Journal of the University of Bombay*, Vol. I, Parts I and III.
3. *Calcutta Review*.
4. *Journal of the Annamalai University*.
5. *Half-Yearly Journal of the Mysore University*, Vol. V, No. 2.
6. *Madras Agricultural Journal*.
7. *Mysore Economic Journal*.
8. *Monthly Summary of the League of Nations*.



# ANCIENT SOUTH INDIAN POLITY AND ITS BEARING ON OUR PRESENT PROBLEMS<sup>1</sup>

BY

RAO BAHADUR DR. S. KRISHNASWAMI Aiyangar, M.A., Ph.D.,  
M.R.A.S., F.R.Hist.S., F.A.S.F.

The subject of the lecture, as defined above, is not one of my choice, but was prescribed to me, as it were, by my friend, Dr. A. Lakshmanasami, the convener of the University Board for Extension Lectures, the reason for which prescription being obviously that I delivered before the University recently a course of lectures on this subject as the Sir William Meyer Lecturer.

As thus described, the subject falls into two parts, the one directly historical and the other political, in the sense that it relates to Political Science, not to say exactly contemporary politics. But the function of the historian which the first implies is something quite different in character from that of the student of Political Science. His function is as narrowly as possible to recover what the administration of South India was in the days of Hindu rule, and set it out as carefully and clearly as the material available would permit. The second involves the consideration how far the features of this administration as projected could be adapted to modern conditions and applied, either in whole or in part, to the solution of our current problems of administrative reform, or administrative development. It will therefore be necessary in dealing with the subject to preserve the distinction between the one and the other.

The first point to note in a discussion of this subject is that it is possible to conceive of South India—India south of the Krishna-Tungabhadra line more or less—as having a distinct character of its own. This it must be remembered is a directly historical division, and not an arbitrary choice. While it was, as open to outside influences, influences from

<sup>1</sup> Madras University Extension Lectures. The first of the Course of general lectures for 1933.

other parts of India as well as influences from outside of India, it still was so distinct politically as to have developed in this field, as in others, a character which may be regarded as different from the rest. It is in that limited sense, that we speak of South Indian History and South Indian polity. Here as elsewhere in India, the notion seems to have obtained, and we have clear indications of it in survivals, that the State was a something distinct from society, and the emergence of the notion of the State begins with the conception of political life and political organisation.<sup>1</sup> As elsewhere in India, such political organisation as we are able to trace here, emerged as a development from the tribal organisation of more ancient times, which is regarded as more or less a common feature. As early as we can reach back in our survey, we find that the administrative system was that of a monarchy, because we do find a monarch at the head of it. It is a well-known feature that monarchy as such, unmixed with features of other classes of polity, has not been usual anywhere. Even such governments as are generally described as monarchical are of a mixed character. The monarchical organisation could contain features which are describable as aristocratic, and some even democratic. A monarchy is a prominent feature, and, where a monarchy exists, the institution is treated with so much consideration that we would not be wrong in describing such, as monarchies in point of character. So perhaps we can describe the general character of the administration that obtained in this part of the country as usually monarchical. Except when governments were limited to a very small area, the simple one-man rule without assistance would be impossible, and the moment that from out of this need springs an organisation, it assumes a complex character showing features which may be described as the one or the other, aristocratic or democratic, in point of character. Taking therefore a normal administrative system in India, we find the monarch at the top exercising large powers and showing himself in many particulars as an earthly Providence, whose commands are generally regarded as not open to question, and thus presenting, at first sight,

<sup>1</sup> See Lecture I; *Evolution of Hindu Administrative Institutions in South India*.

the appearance of undiluted autocracy. This autocratic character of the sovereign is modified almost from the beginning by the existence of bodies of people, either a select few or the greater number, which did impose certain limitations upon the exercise of this power.

It is generally recognised that law in early society is not made by legislation, but is more often regarded as the work of regulation, not altogether beyond power of modification; but modified from time to time upon the well-established demand of practice, recognised by the cultured elite, generally disinterested and merely recording changes that have found general acceptance and established themselves. So long therefore as this legislative power, even the qualified power in point of legislation, is entrusted to an authority altogether outside of the monarch and his servants, it constitutes the first limitation upon the autocratic power of an individual. The monarch was advised by councils of wise elders; as we find them in this part of the country, they are constituted of two distinct classes of people, the one representatives of five groups into which society seems to have been divided. Then there is another group of eight,<sup>1</sup> perhaps not exactly as independent as the other, that constitute largely the body of responsible officials, whose knowledge and practical experience of administration were undoubtedly of value, and without which administrative measures were likely to prove defective. These constituted eight groups, and their advice had almost necessarily to be taken before orders could administratively be issued. Beyond these were the people, perhaps generally the citizens of the capital, but on occasions of importance including representatives of the other people as well, who were brought together to express their opinion on questions of importance. One feature may be noticed in regard to this, which is of a peculiar character, that decisions were not taken generally by the majority vote. Perhaps this was done where particular issues of a specific character were put before them to say yes or no; but, in regard to the generality of matters in which their advice was asked, the consultation usually took the form of the exposition of the matter, the

<sup>1</sup> For a discussion on these, see *Evolution of Hindu Administrative Institutions in South India*, pp. 16-24.

pros and cons being placed before them by capable and respected elders, and the course indicated being more or less generally accepted after discussion. That is, the decisions were taken not strictly as in modern times on the principle of a majority vote. That was the character of the administration at the headquarters. The king helped by a large body of officials, and, by the advice of a well-chosen council, carried on the administration with the consent of the people expressed, on matters of importance, in their assemblies.

The administrative organisation showed features which we are accustomed to associate with administrations in modern times. There is the central government, and, where we are concerned with large areas, there are also provincial governments constituted on the pattern of the central government; and then we find distinct evidence of an organisation corresponding to local administrations of modern times, but taking into it the rural areas far more than perhaps even modern local administrations do now. One might almost say that the administration as such, centres round the administration of rural localities, on which were developed practically all the details of the administration that are of interest to the people directly, the functions specifically left over to the central government being comparatively few and well defined.<sup>1</sup> We may therefore treat of this administrative organisation in two sections, rural and central, the provincial being a sort of intermediary merely reporting to the headquarters administration itself. Provincial administrations therefore may be regarded as the Central administration limited to areas for purposes of convenience and subject to control by the higher authority.

Beginning with the rural administration then, we find rural localities divided into two classes, villages, or townships of a large size, with a comparatively large area depending upon them, were constituted each into a division which is generally described as constituted by the town itself. Otherwise a number of rural units, or villages, were joined together, almost on the model of the modern village unions, and constituted into a rural unit for purposes of administration. These small divisions were called *Kūrrams*, the larger

<sup>1</sup> Opus. cite. lectures, V and VI.

township being called a *Tarkūrṇam*, being a division by itself, and the others, *Kūrṇams* merely. Each one of these units was provided with its own administration. All power for this administration was vested in the inhabitants as a whole, but represented generally by those possessed of property. We cannot say whether, from the very beginning, any specific property qualifications were fixed. There must have been some such. Either possession of landed property, or ownership of residential houses, or some such consideration seems to have been the guiding factor, though the matter seems to have been left elastic enough to include, on occasions of necessity, perhaps all the inhabitants of the locality. In the course of its development, we do find a property standard fixed which amounted to the ownership of land of about the size of one acre and a half, or the possession of a house built on one's own land, or the possession of learning of a particular degree, generally in combination with property, perhaps even without. A large assembly like this cannot always meet, and cannot always carry on the work of administration directly. It seems therefore to have been limited to representatives of groups, perhaps not fixed with any arithmetical exactitude, to the older, or the more wise, or the more influential for some other reason, generally coming together and transacting business for the whole body. For this purpose, the inhabitants fell into a certain number of groups, and these groups were entitled to separate representation.

The actual work of the administration was carried on by means of committees, committees of a comparatively small number; twelve constituting the larger committees, and six the smaller. These committees were elected on a double basis, possession of property and of capacity. They were appointed again on the double basis of election, or selection, and lot. The qualified people were chosen and their names entered on slips of the *palmyrah cadjan*, collected and classified according to wards, in the case of the larger towns, possibly villages in other cases. Their representatives were then chosen by a system of casting lots. The qualified were chosen deliberately, the actual individuals were drawn by lot ultimately. These discharged their functions for the year. Those of them that did their work

properly, and got out of their office with satisfactory acquittance, were eligible for holding office again. Those whose work during the year had been found to be unsatisfactory, were debarred from standing for election again. But in case of administrative malfeasance, the exclusion extended to something far beyond the mere individual, and took in in the exclusion practically all relations of the first degree. That is usually in the case of those responsible for the keeping of the accounts, or for the administration of the funds of the community as a whole.<sup>1</sup>

Of such committees, the localities concerned were provided with a certain number, according to demand. A number of these would necessarily be common as indicating the minimum general requirements of these localities. But if localities showed special features and a demand for a new department of work, that department of the work was entrusted to a separate committee. From the inscriptions so far made public, we find as many as ten of these committees in specific reference. But there are indications that in certain cases they might even be more. The general committees are the *Samvalsara Vāriyam*, a general committee for the administration for the year. Then there was the *Tōtta Vāriyam*, the committee that looked after gardens. Then there was the *Ēri Vāriyam*, the committee whose special function was the maintenance of the irrigation tank or tanks. *Kaḷani Vāriyam* was a committee that had to do the work of the distribution of the fields among the cultivators, and matters connected therewith. Then there was the *Kaṇakku Vāriyam*, the committee for accounts. There was then the *Kalingu Vāriyam*, the committee that looked after the sluices in particular. This would usually be included in the *Ēri Vāriyam*, excepting in localities where this department of irrigation works constituted a sufficiently important branch of the work to require a separate committee. Then there was *Taḍivaḷi Vāriyam*, the committee which took charge of the roads. Then *Pon-Vāriyam*, a committee for the assaying of metals and regulation of currency. Then there was a *Panchavāra Vāriyam*, a sort of a general committee, which

<sup>1</sup> For the whole of this, see Opus cite. lectures V for Election rules, and for exclusions appendix to the same lecture.

seems to have represented the five groups constituting the inhabitants as a whole, and looking after the general management of the village, such as market regulation, regulation of weights and measures,<sup>1</sup> etc., When all the people assembled, the general meeting is described as *Perumkuri Mahāsabha*, which would naturally imply an ordinary general meeting in contradistinction, which did not perhaps include the residents quite to the same extent. We have so far not come across with any special kind of a name for this meeting. There are other general assemblies that are usually spoken of as well, in addition to this Mahasabha. There is the *Ūrom*, the people of a particular *ūr* or village, a particular village, whose function took into it whatever concerned a single *ūr*<sup>2</sup> or a village. This would perhaps be of application in cases where a number of these villages had to come in to constitute one unit, or *kūrṇam*. There is also another assembly which is sometimes mentioned as the *Nālṭōm*, the inhabitants of a *Nāḍu* or division, as distinct of course from the inhabitants of a townlet or *ūr*, and the inhabitants of a union the *Perumkuri Mahāsabha*. There was also the committee of justice, a much larger body usually, which administered justice, and had special features, with even separate places of assembly, with separate record offices for recording decisions, etc. Practically all matters that come under the term civil administration now-a-days, came under the purview of these committees, which were all of them under control of the general body constituting the *Mahasabha* of the unit concerned. It is the larger Sabha that laid down the policy, or the general principles of the administration. The committees actually carried out the details of the administration, maintained the records and were subject to appeal against them to the assembly under risk of being even fined and otherwise taken to task. The provincial administrations such as they were, exercised a control that the headquarters had the authority to do, such as controlling and auditing of accounts when called upon to do so,

<sup>1</sup> *South Indian Inscriptions*, vol. III, p. 156; also p. 170 of *Hindu Administrative Institutions in South India*.

<sup>2</sup> See the Tamil parts of the Tiruvalangadu Plates published in *South Indian Inscriptions*, vol. III, pt. v; also pp. 325 ff. Opus cite. *Hindu Administrative Institutions in South India*.

of settling matters under dispute between two such units, and other matters usually in appeal against the rural authorities. They usually interfered and conducted the necessary enquiries, reported to the headquarters and, whatever action was called for, took such orders as the headquarters passed; and such action as was necessary to be taken in consequence by the headquarters, was taken as a rule through the local administration.

The headquarters administration exercised general control over all the departments of the local administration. Even where its interference was called for, it interfered, and, whenever action was necessary to be taken, this administration acted generally through the assembly of the rural unit. We have a supreme example in regard to this in the election regulations issued under Parāntaka for the unit Uttaramērūr.<sup>1</sup> The regulations certainly were made at the headquarters, and had to be put into force in the locality by the provincial governor through the assembly. The assembly was convoked, the governor in charge of the division being present. The revised rules were actually put into force in the name of the assembly notwithstanding the fact that the drafting of the rules was made at headquarters.

In regard to revenue administration and the administration of arable and other lands, the actual administration seems to have been vested in the village, while the headquarters retained to itself the power of regulation in many cases. The village community was regarded as the owner of the land, which was distributed among individuals or families cultivating it. Irrigation sources were provided for it, sometimes by prominent men and even by public or royal resources. But when once a large work had been constructed, it was handed over to the localities concerned, if it could be regarded as work affecting a single unit. The function of maintaining the work in repairs and utilising it for the purposes of the locality, was the business of the particular Mahasabha concerned. Lands were surveyed and measured, divided into large fields, following the alignment of the irrigation canals of the locality. In a single division sometimes, as many as twenty irrigation canals—there may have

<sup>1</sup> *Journal of Indian History*, vol. XI, pt. ii, appendix I.

been more—find mention. Along these canals, or at right angles to them, went the divisions of the larger fields. From the larger fields bits were taken, according to necessity, for allotment to individuals. An individual cultivator had his allotment scattered over various of these larger fields. Whether it be cultivator or owner, there was an effort at equalisation of advantages by taking pieces of land from various fields to constitute one property. Such a collection of pieces of land taken from various fields to constitute one single ownership and, therefore making the unit of taxation, is what is called in the Tamil land *Puravu*.<sup>1</sup> These lands were divided into classes by the survey officers, and at the time that the survey was undertaken. We find mention of as many as eight classes. Lands belonging to different classes went into the one unit of property, the sum total of the various bits constituting the unit and what is due from the land being entered as one item. This amount is what is generally known as the *Puravu-vari*, that is, the revenue due from the particular unit. There was a general register in which was entered these units of land, with the name of the owner from whom the land revenue was due, maintained at headquarters, and copies were kept in the provincial headquarters as well. The revenues due were noted, and this is what is called the revenue-register, the register of revenue due to the government. While this would give us an idea of the revenue due, the revenues actually collected, often differed. There had to be a section of accounts, which recorded the actual collections of revenue, which would indicate as a matter of convenience, the revenues marked as due on the first register, and the revenues actually collected, which might be more or less according to circumstances, more, if unreclaimed portions were brought into cultivation for one thing; or as a result of improvements in the quality of the units making up the property, or owing to other changes, parts going out of cultivation and so on. This is the register of revenue collections actually. There was a whole vast department at the headquarters for maintaining these revenue accounts under these sections. Disputes arising in respect of these were normally settled by the *Mahasabha*; but could,

<sup>1</sup> Opus cite. pp. 139-141.

whenever there was any necessity, be taken in appeal to the headquarters even against the decision of the general committees.

In the judicial branch of the work, causes of action almost right up to cases involving loss of life, came within the purview of the judicial assembly, or the *Dharmāsana*, of the unit, whose function it was to judge upon facts and adjudge a person guilty or not guilty. The award of the actual punishment was however left over to the headquarters for actual prescription. In the department of public works, etc., the powers of the assembly of the locality were equally great. They took charge of irrigation works, such as they were, and maintained them in an efficient condition, sometimes by common free-labour, but more generally perhaps by paid labour, as we find the tank committee being allotted funds, and provided even with boats for removing silt, and otherwise regularly attending to the requirements of the irrigation tank. Irrigation channels had to be maintained in condition also by this very department. Public roads came similarly under the purview of the assembly, and, had to be maintained in condition, by the committee within the limits of the unit. Roads were, according to the needs of the locality, either large or small. The width of the roads we find often specified; some of them were large enough to be called roads, and constituted the main roads. Others smaller and others again still smaller go by different names. There is nothing to indicate that they were metalled, as modern roads are, but some trouble was taken to maintain them in a comfortable condition for even heavy traffic. We come upon references to large trunk roads running through a number of districts, in fact we might say, from one end of the presidency, Cape Comorin, across to Rajahmundry, along the coast, and another running through the Mysore plateau into Bellary and beyond, on the other. Irrigation sources were arranged for when villages were allotted and marked out. Sometimes prominent men made large tanks as an act of public benefit and of personal merit to themselves. But we come across references to these large irrigation works being undertaken by influential persons, such works bringing unoccupied land into occupation and cultivation. In such cases, the person who was

responsible for providing these sources of irrigation was given a share in the benefit of the lands thus reclaimed to cultivation. Royal personages sometimes made use of their accumulated treasures, or even treasures that they acquired by successful wars against their neighbours, for this kind of a benefit, and royalty was allotted like other people the usual share of the benefit accruing therefrom for these investments of theirs. In the case of extraordinarily large works, this particular method of sharing was considered superfluous. It was the responsibility of the rural authorities to provide for the safety of the highways, and of the villages constituting their charge. It was also their function when crimes were committed to track the crime, and bring the offenders to book. Thus we see that the administrative powers entrusted to rural units took into it practically all the daily needs of a civilized administration in the various departments of administrative work; revenue, judicial and police.

The *kūrṇam* is the smallest administrative division that we know of. A number of these went to make up what is called a *nāḍu*, sometimes a *valanāḍu*, corresponding to the taluks of our time. A number of these *nāḍus* went to make up a *kōṭṭam*, which would answer to our modern districts. A number of these *kōṭṭams*, or as they are called *vala nāḍu* in the Chola country proper, went to make up a *maṇḍalam* or province. The *Tonḍamaṇḍalam* for instance contained as many as 24 *kōṭṭams*, a very early division which persisted throughout historical times. While the Chola country proper was divided into a number of these *vala nāḍus* of which we have the names of about thirty, the *vala nāḍus* of this part, answering to the *kōṭṭams* to *Tonḍamaṇḍalam*. Of the *maṇḍalams*, there was a number varying from time to time according to the exigencies of the expansion and contraction of territory. The principal known under the Cholas were the *Tonḍamaṇḍalam*, all the country dependent upon Kanchi; then the Chola *Maṇḍalam*, including the Tanjore and Trichinopoly districts, or more generally perhaps the whole of the Kaveri delta. Then there was the *Pāṇḍya Maṇḍalam*, which took into it practically all the *Pāṇḍya* country. Then there was the *Kongu Maṇḍalam*, the country of Kongu, Salem and Coimbatore districts with adjacent parts. Then

there was Ila Maṇḍalam, the part which then was under Chola authority for some time, with two or three divisions, named either *maṇḍalam* or *valanāḍu*, in the Mysore plateau in the days of Chola rule. These *maṇḍalams* were generally divisions which once formed separate kingdoms, but had, on conquest, been incorporated as provinces under the Chola empire. It is over these *maṇḍalams* that viceroys were appointed who, in several cases, were princes of the blood. Over the smaller divisions, divisional officers were appointed with a comparatively small staff taking note of these branches of the administration which came within the purview of the smaller units, and acting as intermediaries between the headquarters and the smaller units below. The viceroys of the *maṇḍalams* in point of power, exercised considerable authority, enjoyed a considerable amount of freedom, though subject to real control from headquarters, even in matters like the administration of the revenues of the provinces. As a matter of fact, the details of the organisation of provincial governments available do not take us much farther into the actual distribution of power between them and the headquarters. But from the instances in which interferences have taken place from time to time, we may be almost certain that they exercised authority in behalf of the headquarters, and have had to obtain higher sanction in regard to matters of any importance.

The headquarters administration consisted of course of the king at the head with a council, and a comparatively large body of officials *in immediate attendance*, such as the various secretaries, heads of departments and others of that rank, each with his own establishment, larger or smaller according to the needs of the department concerned. References came from below systematically, and had to be answered. The transformation of one of the smaller revenue divisions under a secular constitution into that of a gift to a temple, or to some similar charitable purpose, required sanction from headquarters. The headquarters have had to act upon reports from below, checking and controlling the report itself by their own investigation, whenever it was felt to be necessary. Sometimes these had to be referred to various departments, as normally they would certainly concern more than

one department. Each department had to report, and final orders were passed on a joint report of all the departments together. This indicates a regular and well established system of *red-tape*, and in the last stages of it, it was one of the confidential secretaries, corresponding to the private secretaries of modern times, that had to submit papers and obtain orders. The orders were generally given by word of mouth, and copied down by the secretary in immediate attendance. That was sent to the general secretariat, which examined and satisfied itself that the order was not likely to meet with objection, and orders were then issued. Before finally issuing the order, it had to receive the approval, indicated on the order itself, of an officer corresponding to the chief secretary called *Olaināyakam*, and another dignitary generally described *Perudaram* with a following name, perhaps one of the rank of a councillor; and then it was that it was ready for issue, and issued as such. But this is only mere official and administrative procedure. As far as information available goes, matters of importance in all spheres seem to have come to the headquarters. It was really a question of the degree of importance of the subject-matter, not the character of the subject that seems actually to have regulated the division.

We have so far described the work of the king, his council and his ministers at headquarters. It is not full enough to give us an insight into the working of the machinery of the administration in all its details. We may regard the administration of the army and the navy to have been entirely the business of the king, his council and his ministers, and there is nothing to show that it reached beyond this circle. The department of foreign relations and diplomacy, and departments allied thereto, seem to have been exclusively the business of the king and his council. All the more important details of the civil administration, whether they were directly administrative, or belonging to the control of the administration below, came before the king in his council of administrative heads and others, and were disposed of finally there but with the full cognisance and consent of the local authorities concerned. Except in regard to these broad sections of power, the monarch usually was content to leave the

administration in the hands of the people and their representatives. The monarch exercised his power subject to the advice of his council, liable to no other check except that of popular opinion, which was apparently not provided with any organised means of arresting his attention.

The usual method of drawing the king's attention other than the administrative, consisted in the judicial method of calling his attention to any act of injustice. This was a personal appeal by using the bell of justice or, even of crying out injustice, such as is said to have been done in the Vēlvikuḍi grant. Once the monarch's attention was drawn to it, the necessary move was given administratively till an equitable settlement was reached. That may be taken as the general character of the administration as a whole. We might draw from this the inference that the monarch enjoyed full power which was exercised in a manner to secure him the willing consent of those whom his administrative acts touched. This was done generally by carrying on the administration through a popular agency, which assured to him the active co-operation of the people in giving effect to these administrative acts. Such an administration must have had small beginnings in the past, and must have evolved in course of time gradually, till at last it attained to its full maturity in the tenth to the fourteenth centuries, and continued almost to the establishment of the British power.

The whole of this administration may be described as a monarchy assisted by an efficient bureaucracy, with powers limited by having no legislative authority vested in the monarch, and by his having to administer the Dharma and the maintenance of a social order, both of them not of his making. The council may be described as representative, but could not be regarded as at all responsible. It may therefore be better to describe it as a monarchy, not a democracy. The actual administration was carried on not directly by an official bureaucracy, although an efficient bureaucracy existed, supervising and controlling the local administration, such as it was. It is in this sphere of local administration that we find much that might be described as popular, perhaps even democratic. But these local units of administration were not exactly 'the autonomous communities of Hellas, separate and

self-sufficing'. The question arises whether they could be called 'village republics' as they are sometimes so described. One objection to this would be the existence of the monarchy which did exercise effective control over these, and, to that extent, the character of an autonomous republic would be inappropriate for them.

Another objection that could be urged against it is that 'the popular consciousness, such as was exercised in the sphere of local administration does not appear to have extended to anything beyond local interests'. It would be difficult to say with the material at our disposal whether it was really so, as there appears to have been a satisfactory arrangement for bringing local interests in many departments into conformity with the more general requirements of the community as a whole, in spheres of action the results of which transcended the interests of an individual unit. One noticeable feature of the democracy such as we see in working is the lack of the features of modern democracy in the absence of elections, majority decisions, etc., although we cannot say that it does not exhibit the sense of equality in regard to political administration. But they do exhibit a democratic practice, such as the right of the members of a community to draw attention to their needs, and to express their views on a variety of matters of common interest, and even in the fair adjudication of conflicting interests among them. A critic of Eastern institutions<sup>1</sup> has observed that 'when the East was completely organised on this pattern, everything outside the immediate common interest came within the province of the ruler or his officials. The points of contact between these two spheres were few, and we may be sure that on both sides this separation was duly appreciated'. As far as we can judge from the details that have come down to us, the demarcation of spheres mentioned here is not quite so clear and distinct, while the understanding of the distinction between the one and the other was clear enough to avoid clashes. We cannot well conclude that 'the political organisations we are

<sup>1</sup> The author referred to, in this, as in the other quotations is Dr. A. D. A. Kat Angelino, a Dutch scholar whose work *Colonial Policy* was recently published by the well-known publisher Martinus Nijhoff, at the Hague. It is a study—a valuable one at that—of the relations between the Western Governments and the East.

now describing as a number of close local spheres covered in, as it were, under the one roof of the ruler's authority'. While this statement might seem true at first sight, we could neither regard the local spheres as so strictly closed in, nor the supervising ruler's authority as so entirely absolute or patriarchal in point of character. 'The function of the ruler was almost deified in point of dignity. The ruler was even regarded as deity on earth, not because of his birth or any prerogative in him, but because of the authority and the position vested in him'. At the same time the position was discussed as that of a servant who discharged his duties in return for a consideration, and liable to be taken to task and even dismissed for gross failure. The last notion is contained in the expression *Shad bhāgin*, the *sixth*-share, while it is not altogether an imaginary conception that the monarch was responsible. His position was that of an administrator of an established order, without any authority either in the creation or in the modification of the existing order. He certainly had no part in the creation; and modification could be brought about only by general popular demand as expressing the established practice recognised by the elite (Sans. *Sishtas*); and what the ruler could do directly was no more than that of a high-placed influential person. If the state is to be judged as an authority 'which actively intervened in everything and regulated the life of everybody', such a power was entirely absent, and in the absence of that power the ruler 'cannot be regarded as absolute or autocratic'. The intervention of the ruler in the case of South India was fair and frequent, and may be taken to be of the paternal character of other eastern rulers. But it may not be true to say in this case that 'they were not systematic acts of government, and many of the activities of the state had a religious tinge, which transcended local affairs and aimed exclusively at the good of the nation as a whole'. The acts of the Indian ruler in regard to local affairs cannot be said to have had a religious tinge, except in those cases where the subject was a religious one, and it seems to be of the normal general exercise of a controlling authority.

This kind of organisation is said to be 'fundamentally different from that of the modern state. It might be better

even not to use the word state at all. The modern state with its system of lower autonomous communities, which implies at the same time a great concentration of power and a considerable differentiation, bears no resemblance to what might perhaps be best compared with the federal section (the 'Fœdes Iniquum') that existed in the Roman Empire'. It would be difficult to assert that the difference is fundamental, but without more detailed knowledge, the similarity to modern administration could not be pushed far enough for demonstration. But from whatever information is available, it looks rather more close to the modern than to the Roman pattern of local administration. Another feature of these organisations is said to be that nothing is done 'to instil into the population the consciousness of notions outside the range of local interests', and as a consequence 'the death of the ruler has frequently meant the collapse of the fabric of the state'. Rulers have ruled and died, dynasties have risen and fallen. These local institutions have persisted and left their impress so permanently that the organisation of the Madras Presidency at the commencement of the nineteenth century could still find remnants of this organisation worthy of being incorporated in the new organisation that had been brought into existence as a British unit of administration.

Coming to the consideration, what useful lessons can be drawn for the current problems from a study of these institutions of the past, we have to consider certain general positions. The objections considered above are considerations urged for the promotion of a policy for the future by the fully developed states of the West who are mandatories of history for some of the eastern nations with whom they have got into historical connection in the course of their own development. They are therefore of considerable importance to be taken note of in considering the lessons of past history for the present and the future. As a matter of fact one school of the more serious students of history consider the purpose of historical research to consist in nothing more than gaining an accurate knowledge of the past. That undoubtedly is one function, nay, we may say, the primary function of historical research. But is the study of history to stop there altogether?

The regaining of the past with as much accuracy as we can, is a desirable object in itself undoubtedly; but are we to remain content with having done that, and without going further to draw any lessons therefrom for current purposes, or in the shaping of our own future? At any rate, it seems to be taken for granted that lessons could be drawn from history for application, not merely in understanding the present, but even for urging particular courses of action for the planning out of our future growth. Among recent historians there is an influential section, in some considerable number that do hold, along with Seely and Freeman, that history has its uses of a practical character. We take from a report on the teaching of history, issued by the London County Council in 1911, the following extract:—

'In France the teacher is told to preach national Republicanism, as against monarchy and internationalism. In Prussia, still more definitely, he is told to preach the advantage of monarchy—as exemplified by the reigning house of Hohenzollern—and the dangers of modern socialism. On the other hand, in Queensland he is to found history teaching upon the doctrine of the sanctity of state property. . . . In Hungary, the teaching of loyalty to the Magyar kingdom, as distinct from the Austrian Empire pervades the whole system—. . . . In Italy no opportunity is lost of emphasising the great advantages of union, fraternity, freedom, and independence'.

This is plainly a misuse of history for purposes of propaganda, and is an abuse, if it is any use at all, of history. The remark that Mr. H. G. Wells made in regard to Germany before the Great War may be borne in mind in this connection:—'German historical teaching became an immense systematic falsification of the human past with a view to the Hohenzollern future'. That is the actual danger of this kind of an application of history, and a modern historian, Professor Hearnshaw, has summarised the applications of history under three heads.<sup>1</sup> History could be studied as providing training in political life. While we therefore may readily admit that there is not the certitude here either of mathematical deductions, or even of scientific inferences, history ought to develop the faculty of impartial judgment by habitually having to judge of the occurrences of the past, in which the passions

<sup>1</sup> *Contemporary Review* for December 1932: 'History and Politics'.

and personal interests need have no part, and by the growth of a habit of looking at things from a detached point of view, one gets to learn to be able to judge of things, even contemporary and having its consequences in the future, with almost the same kind of detachment. The second use of history is that history provides a storehouse of precedent. But precedents would be considered of no value where circumstances operating in combination at particular periods of time taken for comparison could never be exactly the same. They never could be exactly the same in all detail. But it is not always necessary that we should have cases agreeing in every detail. If history records the experiences of mankind, it certainly can provide cases of human experience which may be partial in its application for circumstances of the present or future, but still of value as a great deal that is human and influential in regard to history is permanent and constant. At least one can avoid the errors of the past, and to that extent at any rate advances can be made with surer and more confident steps towards the future. The third is that history will teach you that in taking steps for the progress of a community, extreme caution is required to assure onself that the progress is safe and permanent, and that it will be safe and permanent only when it preserves the continuity of national life. Numbers of instances could be quoted to convey the valuable lesson that when this is neglected, the result is *damaging to true progress*. But it is hardly necessary to take time giving instances.

India is a vast country and varied in respect to the character of its inhabitants and the circumstances, economic, social, religious, etc., in which its various communities have to live. One uniform pattern of administration may perhaps be impossible, though not to the same degree as before the middle of the nineteenth century. Distances have been annihilated and people widely apart geographically have been brought together by steam, electricity and the telegraph. Notwithstanding this annihilation of distances, there is still considerable variety, which has to be respected for any solid progress. Any administrative plan therefore will have to take the character of some kind of organic division reaching down to the smallest unit. As a matter of fact, the question under consideration for Reforms that is occupying our minds are

the Federation, perhaps a smaller division within it of the union of the British provinces, then the provinces themselves on the eve of the establishment of what is described as a complete autonomy. That is all right so far. The provinces themselves are big enough, and there is a present demand for a realignment of these on a linguistic basis. There is also the consideration that provinces that are really too big are reduced in size. If a division is to be made at all, there again comes in the consideration of a distinction in the actual circumstances of the division going into a big unit like that which can stand out of that large unit. Of course, there are obvious conveniences in regard to these. The inconveniences are also equally obvious. The creation of an administration for a small unit means a staff of bureaucratic agency, and in agreeing to carry out the division, it is not merely the convenience of distances, or unity of language or culture generally that has to be taken into consideration, but also the expenditure or the expensiveness of the administration.

There are those disinterested reformers who feel that it would be to the advantage of India to bring about a considerable amount of rural reconstruction. As a matter of fact, successful governments all over depend for their success largely upon a well established system of local governments for the simple and satisfying reason that much of what an administration concerns itself with, comes into contact intimately with the life of the people, and these matters are perhaps best managed by the people themselves. Matters of daily detail, where the government is brought into touch with the governed, are matters which may well and wisely be left to local management. In organising the provincial administration therefore and arranging the provinces themselves, it may be urged with some validity that it would be advantageous for us to go back to the system of rural administration that obtained in the past. The vital disadvantages of cutting up a nation into small self-contained communities, and making them into watertight compartments is not as serious now-a-days, when communications have improved so wonderfully that the consideration might perhaps be neglected altogether. That is one point which may be considered as of practical application to the present.

It has been held however that it is impossible for us to go back to that as the following extract puts it definitely: "The development of a constitution on a purely Indian basis is impossible. Village governments, caste panchayats, and ancient republics are undeniable facts, but it is no more possible to go back to them so as to develop an Indian constitution, as it is to make the Ganges to flow back to the Himalayas."<sup>1</sup> But then again, even in this case, it is not a question of an exact copy. It is a question merely of the recognition of the general principle, and its application to the problems of our time, with, of course, the modifications that altered circumstances call for. The village panchayats that are actually sought to be revived can, on sound principles, and under sympathetic direction, be made to serve the purpose remarkably well. Even in regard to other matters transcending mere rural administration, the possession of detailed knowledge of how the administration was carried on, and particularly as to how careful and studious they were in the past, to see that there was no break with the past, is a consideration we might well lay to heart from a knowledge of our past history. It is this rural organisation such as it was, that has been recognised by no less an authority than Mountstuart Elphinstone that took the country through unscathed, at least not as badly scathed as it would otherwise have been, through all the changes, at some periods thoroughly anarchical in point of character, that have overtaken us in the centuries preceding the establishment of the British government in India. If it showed such vitality even in times of revolutionary changes, it ought to be recognised that that superior vitality should be harnessed to our purposes.

Many idealists often propose changes, changes of a revolutionary character. It is hardly necessary to question the honesty of purpose of those who may make the proposal; but if the proposals are to be considered, they have to be certainly in the light of history and past experience, not only of this land but perhaps even of others, always making due allowance for our own growth, and the factors that have gone into it which are bound to influence, by the very fact of that growth, our future progress as well. This could hardly be done

<sup>1</sup> Keralaputra: *The Working of Dyarchy in India*, p. 111

without a full knowledge of the past, not only in the region of political history, but in the history of all that goes to make up man as member of a civilized society.

One question that may suggest itself is whether it is absolutely necessary for any progress that all the various communities should be made to submit themselves to a process of macadamization into a uniformity. We can draw useful lessons from the past that, while we do know that people of one way of thinking and one way of life may be a great convenience, that is not always necessary, and that it has not been so. We can certainly learn from our own history, which demonstrates the possibility that a varied life within a community is possible, consistently with the unity requisite for good government, and securing an advantageous position among contemporaries. Analogies drawn from the histories of European states and the smaller states among them, are likely to prove of no assistance in ordering a political organisation for discharging satisfactorily the duties imposed upon the government of the whole vast Indian empire. In post-war Europe there is a recognition of this fact, and the mere hesitation to copy the democracies of the smaller states of Europe, is evidence of that. When therefore we have to plan a government to meet modern requirements, and the demands of a growing future, we have to take note that we are dealing with a very big unit, and make allowance for its multitudinous variety, without foolishly attempting the task of introducing a uniformity of culture as a necessary pre-requisite. One may say that that uniformity is not necessarily a pre-requisite, and one may even doubt honestly whether such a uniformity with a vast mass is at all attainable, by anything short of the drastic measures of extreme communism, if even that. A recognition of cultural integrity along with progress, ought to be the ideal, and it is matter for gratification that this need is recognised by recent writers on the subject.

Considering eastern society from within, Professor van Vollenhoven has made the observation 'customary law is not, as is so often believed by Europeans, an unchangeable quantity, although the change is usually not visible within the period in which one observer can look at it'. He calls attention to the Malay proverb 'when the flood comes up, the

bathing place is moved, when the Raja changes, the *adat* (customary law) changes'. Assuming that even small and apparently immutable communities, such as eastern communities are described to be, the following remarks are made:— 'If these small communities are subject to change owing to the fact that they are living organisms, they must seek to adapt themselves harmoniously to their environment, from the point of view of social organisation, economic activities, technical improvement, etc. When great cultures or religions engulf all these separate small communities, and are in their turn activated from outside and enriched by other influences, the pace at which the communities change and expand also increases. Even where there is no such cultural influence or where it is scarcely active, life has not stood still and has effected its quiet mutations in the gifted personalities whence it will suddenly spring forth at times of important modification in the social organisation'. The important caution is also added 'We must unfortunately also admit that these changes are not always in the direction of progress; so far, it seems to have been the fate of mankind to move perpetually in an alternating rhythm.'

Passing on from rural administration, it is even possible to draw from South Indian history points for consideration in respect even of federation. It is generally well-known that Indian states generally were completely autonomous, nay even independent ones. We may take that as the normal condition of political division in India. At the same time there has been a constant, we might almost say, unremitting effort by one or other of these states to achieve an ascendancy, which sometimes took the form of a mere hegemony, and occasionally, particularly during the more brilliant periods of the history of India, the actual form of an empire which could be regarded as a union of states in some kind of federation rather than in the closer union connoted by the modern term 'Empire'. As a South Indian example of this, we may mention the empire of Vijayanagar which came into existence under stress of circumstances, which necessitated strong and united action to keep the invading Muhammadans out of this southern enclave. Notwithstanding continued pressure

<sup>1</sup> Kat, *Angelio Colonial Policy* i. 132.

and repeated invasions, this empire was able to hold its own, and keep out the enemy for two centuries and a half. The continued pressure relaxed for a while and then began again. After suffering in the disastrous battle we named, somewhat inappropriately, Tàlikota, Vijayanagar still continued intact, we might even say, revived under Venkatapati Raya, although before that the Muhammadan pressure effected a breach or two along the north-western frontier, and made an advance into the interior. There was a successful counter action, and we may say, that the empire continued unscathed till the death of this great ruler which brought on a great war of succession. This war undermined the strength of the empire by relaxing the hold of the headquarters over the various parts of it which, of course, in the days of the empire could be described as provinces. It was the weakening alliance of these provinces, and even the positive disloyalty of one or two of these, that actually brought about, after half a century of struggle, the extinction of the empire. Whether we call it empire or federation, it would be rather difficult to strictly classify it. In modern parlance, the union served the purposes of its existence efficiently all the time that the central power was strong enough to enforce loyal allegiance on the subordinate powers, whenever they showed an inclination to break away from this loyalty. A few instances could be quoted of where there was an exhibition of this want of allegiance, it was corrected by enforcing the rights of the paramount power. It was only when it became more and more clear, that from the combined pressure of the enemies from the north, and disloyalty of the subordinate powers within, the strength of the Empire was sapped, that the break-up of the empire actually came about. It seems therefore clear that in this period of history, we might even say, generally through Indian history, the necessity of India was a central power strong enough to enforce its authority, and prevent the centrifugal forces from exercising themselves in bringing about a disintegration. A strong central authority seems a necessity, and the autonomy or the independence that the constituent states enjoyed, while having as much of a latitude as possible, had still to be put under proper discipline of habitual obedience to the central authority for success. The need now-a-days is perhaps the greater, having re-

gard to the peculiar feature of the present times that India cannot pursue its own course of life without reference to outside developments. Even a large unit like India cannot pursue the path of national progress without having perpetually to think of international changes. A strong central authority seems much more needful now than perhaps even in the days of Hindu rule.



# POOR RELIEF IN THE CITY OF MADRAS

WITH SPECIAL REFERENCE TO THE PROBLEM OF PROFESSIONAL  
BEGGING.

BY

TERESA JOSEPH, M.A., B.SC. (*Lond.*) *Professor, Queen Mary's  
College, Madras.*

In India we have no paupers in the technical sense of the word, since a 'pauper' is a destitute person in receipt of relief administered under a Poor Law Act, and in India we have no Poor Laws, either All-India ones, or Provincial ones; hence no relief in this technical sense is administered in this country. But this does not mean that we have neither destitution nor the giving of relief to the poor. What really matters to Sociologists and students of Social Economics is not the question whether there are paupers in the technical sense in a country, as whether there are destitutes, and we in India have a preponderantly large share of destitution as compared with western countries. The poverty of the Indian masses is a byword. Whether this be due to the lack of power to produce adequately the necessities and comforts of life, or to unjust distribution, or to some other cause, there is no difference of opinion as to the fact of our poverty. Nor is there any difference of opinion as to the extent of professional begging in the country, especially in the big cities. One is almost tempted to say that in our country where every question worth discussing about is a matter of acute controversy, this seems to be the only fact about which there is unanimity of opinion. The poverty of large numbers of our honest self-respecting citizens, whom hard circumstances force to live a hand-to-mouth existence, whose standard of life is invariably below the starvation level, is an established fact. In addition to this, we have countless beggars of all types, the aged, the infirm, the incurably diseased, the sturdy vagabond, infesting our streets and our public places, our temples, churches and mosques, pestering the unlucky town-goer with a persistency that is both annoying and revolting. This in itself is evidence of the poverty of large sections of our population

even if the silent sufferings of the honest self-respecting citizen leave us unmoved.

Our per capita income is said to be one of the very lowest among civilized nations. Here too there is a good deal of unnecessary controversy as to the exact amount of this income, but the fight after all is not over a big margin of variation. Indian opinion is inclined to put the income at a low figure, while non-Indian and official opinion on the whole favour a bigger figure than our national wealth seems to warrant. The best estimates on the Indian side are not able to give the Indian more than an annual income of about sixty rupees, while statisticians on the other side would like to raise this to about one hundred rupees. Today it is considerably lower owing to the phenomenal fall in prices which occurred since 1929. From figures which will be given later on in this paper it will be seen that it costs the community from five to six rupees monthly to feed a pauper in a Poor House in the city of Madras. When to this is added the general establishment charges, the total cost per pauper comes to something like ten rupees monthly or about one hundred and twenty rupees annually. A boy or a girl certified under the provisions of the Madras Children Act, 1920, and sent to a certified school is entitled to a certification grant of ten rupees per month from Government. Hence our per capita income, even granting that the higher figure is nearer the mark, is still lower than what the community spends in maintaining a pauper or a certified child. The story does not end here. Per capita income is the average obtained by dividing the total national income (in whichever way computed) by the total population of the country. The total income of the citizens is the total of the income of all classes of the community, rich and poor alike, and therefore if from this total we take away the very big incomes of *the few* and the fairly big incomes of *some*, the many that are left will have a much smaller total for purposes of division. This must necessarily lower still further the per capita income of the majority. No wonder, destitution is a serious disease in the body politic of India, one that looks almost incurable, hopeless because of the very dimensions of the problem. But the problem must be tackled, and tackled quickly, for the longer we delay, the

greater is the danger that the disease will become incurable. It is already chronic and all that has been done so far is for Provincial Governments to tinker with the problem with the aid of antiquated pieces of legislation administered in a slipshod and irrational manner. There is the experience of the West and the teachings of science at our disposal and we have every reason to be optimistic. A more scientific and rational organization of even the resources that are now at our disposal will go a long way in relieving a good deal of the unnecessary suffering of our destitute citizens. In spite of the hoary antiquity of the institution we have no right to say that poverty is inevitable—at least not till we have done our best and failed in the attempt. Poverty has become chronic in our country only because we do not choose to prevent it, because all our well-meant generous efforts so far have been bent on relieving it, and relieving it in an indiscriminate manner, rather than on curing it, because Indian fatalism and apathy are only too ready both to acquiesce in the fact of its inevitableness and to shift the responsibility to other shoulders. Our present attitude to this problem is not merely unjust, but also economically unsound. People in the West have with the aid of Poor Laws, Social Insurance Schemes, Maternity Benefits, Old Age Pensions and other equally important schemes coped with a fair amount of success, with various economic and social ills which are handmaids of poverty, and there is no reason except our apathy, to prevent us from at least making an attempt to imitate the West in this respect. It is not so much the knowledge and the power that is lacking, but the will to do, and the sooner our civic consciousness is stirred to realize sufficiently the gravity of the situation, the greater is the chance that a beginning will be made to stamp out the fell disease of poverty from our midst.

Destitution in modern communities, especially in urban communities 'implies' as the Webbs say, 'not merely the physical condition of lack of food, clothing and shelter, the fear, of oncoming disease, and premature death from continual starvation', but what is even more serious and degrading, it implies the gradual submergence of the human soul; for destitution brings in its train not merely physical starvation, but

what is even worse, excessive overcrowding, insanitary surroundings, crime, drunkenness and all that go to make life brutal, coarse and immoral. In the limited space at my disposal it is impossible for me to discuss even briefly these different aspects of the problem. The fact of poverty with all its implications is therefore accepted in this paper, and all that I mean to do is to suggest a few ways and means of tackling this problem, especially the more obvious problem of professional begging in the city of Madras. This will necessitate however, a brief survey of the existing provisions for poor relief in the city and such a survey will incidentally lead to a few suggestions as to possible improvements in the system as it now exists.

#### GENERAL CAUSES OF DESTITUTION

Poverty may be due to the lack of power to produce adequately the good things of life. The argument certainly has a good deal of validity as far as India is concerned, but the trend of recent events ought to make us pause a bit before applying it wholesale to certain other countries. Reports of the dumping of coffee into the ocean in Brazil, the rotting of meat in Argentine, the storing of large quantities of wheat in the grain elevators of America, make us wonder whether the world is not suffering from over-production than under-production. Here are countries put to the extreme necessity of having to destroy deliberately valuable foodstuffs and raw materials. A deeper examination of the situation will however reveal that what is really wrong with the world is not so much over-production, as the lack of purchasing power in the hands of large sections of the population of a country. To a certain extent this is a question of distribution. Inequalities in distribution lead to inequalities in purchasing power and this in turn to the destitution of those who lack the wherewithal to purchase adequately the good things of life. To the many who starve there must always be some who eat more than what is good for them; and to offset the overcrowding of our city slums and *cherries* there are always mansions left unoccupied, or occupied only for very short intervals. These are all evils inherent in the present system

of distribution, and as long as such inequalities are allowed to continue, poverty also must exist in the body politic.

### SPECIAL CAUSES

To these general causes of poverty must be added the special ones. Some are poor because they are sick or permanently broken down in health. This itself may be the result of poverty. Others are on the lower rungs of the ladder because of vicious habits which have sapped their vitality and gradually pressed them down into the morass of destitution; a good number of infants, widows and children are left destitute for no cause of their own. There are also the aged who are too old to work, and the willing worker who is unable to find work. These too for no fault of theirs find themselves among the destitutes. Finally there is always in the ranks of the destitute a fair sprinkling of the sturdy type of vagabond, the shirker and the idler who prefers begging to honest work. The total number of destitutes in all countries continues to increase from year to year, from census to census. This clearly indicates that there must always be a stream of fresh recruits into the camp, for the increase is more than what is possible if the increase came from ranks of the destitute alone, prolific though the destitute be. Any scheme of reform to be really effective must have as its objective not merely the relieving of existing poverty, but also the preventing of new recruits into the ranks in future. From this viewpoint, even the Poor Relief of the West embodying the wisdom of ages is not a complete success in so far as even their main objective for long has been, more the relief of existing poverty than the prevention of future destitution.

### NO POOR LAWS IN INDIA

The poor and needy we have always had with us, but until recently the need for State-organized charity of the type obtainable in the West was not urgently needed in India owing to the efficient functioning of certain peculiar Indian institutions. The Famine Commission of 1880 said that India has an unwritten Poor Law in her caste system; the institutions of the joint family and the village community had provision for looking after their own indigent; add to this, in

India there is always an unceasing flow of private charity. For these reasons public organized charity of the type common in the West may not have been thought of in India. But what was true of India in the past is no longer true, and the need for some sort of organized charity is already imperative. The old institutions of the caste system, the joint family and the village community have all lost their vitality and much of their beneficial work is a thing of the past. The country is slowly but surely getting industrialised, and industrialisation always brings in its train a class of landless labourers which form the best recruiting ground for an army of paupers in the future.

#### MADRAS CITY POLICE ACT, 1888

Not merely have we no Poor Law, we have no such thing as a comprehensive Vagrancy Act for the whole of India, such for example as is to be found in Great Britain. There are various Provincial Vagrancy Acts, like the City Police Acts of Bombay, Madras, Colombo and Calcutta, but these Vagrancy Acts are, on the whole archaic pieces of legislation, extremely faulty and incomplete. To cite our own Act, the Madras City Police Act, 1888, Section 71, Clause XXI,<sup>1</sup> provides that 'whoever in any public street, road, thoroughfare, or place of public resort, begs or applies for alms, or exposes or exhibits any sores, wounds, bodily ailments or deformity with the object of exciting charity or of extorting alms shall be liable on conviction to a fine not exceeding fifty rupees or to imprisonment which may extend to one month.' There is a similar provision in the Towns Nuisances Act, 1889,<sup>2</sup> which applies to the mofussil, wherein however there is a restriction that the begging or applying for alms should, to make it punishable, be such as to cause annoyance. Under Section 24 of the City Police Act and Section 8 of the Towns Nuisances Act, 'any police officer may arrest without warrant any person committing in his view the offence of public begging punishable under the above clauses of the two Acts.' Sections 70 and 40 of the Calcutta Suburban and Police Acts have exactly similar provisions. Bombay and Colombo also have similar City and Municipal Acts.

<sup>1</sup> See Appendix.

<sup>2</sup> See Appendix.

In Madras the Law as it stands seems to be sufficiently comprehensive to prevent all begging in the city, and yet in its working it is least calculated to prove either a deterrent or a corrective. Let us see how the Law works. A beggar if found begging could be arrested without a warrant by a police officer and charged before a magistrate, and the magistrate has the option of either fining him or sending him to jail. To fine a beggar, however small the fine may be, is to say the least, absurd. Instead of fining he could be sent to jail, but to commit the infirm, the aged, the incurably diseased, or for the matter of it, even the sturdy beggar to prison is both cruel and irrational. The Law in order to be effective must provide the sturdy vagrant an alternative means of earning a livelihood, and a place for detaining him if caught begging. There must also be infirmaries where the sick and incurably diseased could be made to stay and be taken care of. Madras is not very badly off as far as infirmaries for the sick and the aged are concerned, but a house of detention where the able-bodied vagabond could be compulsorily detained and be forced to work for his living, or be forced to learn the details of a trade, is lacking, and until this deficiency is rectified, no matter what else we do, it is impossible to clear our streets of the none too pleasing sights of beggars of all types. Until then, the City Police Acts also must remain a dead letter. Magistrates after all are human, and it is difficult to convince even these august guardians of the Law that begging is a crime under conditions where no alternative means of earning a livelihood are provided. If arrested, I dare say, even the beggar if he has any sense of humour, would enjoy the whole fun of being committed, tried, found guilty and sent to prison. He would certainly lose his freedom to wander, most probably for a month, but what after all is even a month in the lifetime of the vagrant who has still the rest of his life to wander? The month would pass away in no time, and he would be free to roam the streets again. There is also the additional advantage that as long as he is in jail, he is a State guest, and need not exert himself to earn a precarious livelihood. If the beggar is alive to the humour of the situation, the month in the jail must be a real holiday for him, a period of enforced rest to recruit his health for a new period of

wandering existence. Thus it is in spite of the City Police Act, 1888, and the Municipal Act, 1919<sup>1</sup> which authorizes the expenditure of municipal funds on the provision and maintenance of rest-houses, choultries, poor-houses and other works of public utility, the streets of our city are still littered with horrible wrecks of humanity, crowds of deserving and helpless people, the aged and incurably diseased, the lepers, the congenitally feeble-minded, the blind and the deaf-mutes, people with open wounds and running sores, famished men and women accompanied by still more famished looking children, and these swelled by a crowd of able-bodied vagrants, some willing to work, but unable to find work, and others refusing to work. The whole crowd of these form the so-called professional beggars of the city of Madras—a jumble of all specimens of humanity, but a jumble whose heterogeneous parts have this one characteristic in common, viz. they all suffer from chronic privation of one kind or another. This however is not a complete picture of the destitutes of the city in so far as we have left out of account the silent sufferings of the inarticulate mass of destitute citizens. The fact that the sufferings of these are less apparent does not make them any the less acute; the problem of professional begging is but a side issue of the larger problem of destitution, but in this paper, I am limiting myself to the study of the phenomenon of professional begging in the city. Three well-marked divisions of the beggars of a city are the following:—

- I. The able-bodied.
- II. The Infirm.
- III. The Juveniles.

Any scheme of relief to be really effective must proceed on the necessary assumption that these different classes need different treatment, treatment different in aims, in methods and in application. The general aim in all cases should be cure, rather than mere relief.

#### I. THE ABLED-BODIED BEGGARS.

The Madras City Police Act, 1888 contains ample provision to prevent all begging by the able-bodied and the

<sup>1</sup> See Appendix.

infirm in all our public places. The language of the City Municipal Act, 1919, already referred to, is sufficiently elastic to cover expenditure on houses of detention and infirmaries for our city beggars. Yet in spite of all these laws, the phenomenon of professional begging in the city of Madras, not merely continues, but continues to grow in volume. According to the census of 1921, there were 1,701 beggars, vagrants, witches, wizards, etc. in the city, of whom 974 were males and 727 females. The special census taken by the Corporation Beggar Committee on 15th July, 1924, after a prior preliminary count showed that there were 2,087 professional beggars in the City—1,441 males and 646 females.<sup>1</sup> For obvious reasons, none of these figures can be regarded as accurate, and there must be a big margin of error. Still the increase in the number of beggars between 1921 and 1924 is quite evident. There were 171 able-bodied beggars in the city according to the Corporation census of 1924. The law against able-bodied begging in order to be effective must not only arm itself with statutory powers, but must also provide homes for detaining the sturdy man caught begging. Madras has fairly good provisions for housing the infirm, but there are no provisions whatsoever for dealing with the more rowdy, able-bodied beggar. Homes like the Refuge in Calcutta, the Beggars' Camp at Rowley Hill in Bombay, the Vagrants' Home in Colombo, however inadequate they may be to deal with the whole complicated problem of able-bodied begging in these cities, are still attempts to some extent in the right direction. Calcutta amended her City Police Act in 1909 and provided that 'any aged, infirm or incurably diseased person convicted and sentenced to imprisonment on account of offences mentioned in the Act might be detained for the term of imprisonment in a Refuge instead of being sent to jail.'<sup>2</sup> The Calcutta Act even after the amendment has reference to the detention of the infirm beggar, and even in his case the law cannot compel him to stay in the Refuge for more than a month. The sturdy beggar who is a greater eyesore to the public is left out of the amendment and the only alternative to

<sup>1</sup> Report on the Beggar Problem—p. 2. (Madras Corporation Committee) 1924.

<sup>2</sup> Indian Economic Journal, Vol. VIII, 1927-28. "The Street Beggars of Calcutta" by B. N. Ganguly.

fining him, still seems to be to send him to jail with all the irrational consequences which this involves. All the same, Calcutta has taken a step in the right direction, however halting the step may be, and let us hope this will soon be followed by other and more urgent provisions for dealing rationally with sturdy beggars of all types. A Vagrancy Ordinance was passed by Ceylon in 1907, and this was followed by the establishment of a House of Detention and Home for Vagrants. Beggars arrested are first sent to the House of Detention, from where the infirm and aged are transferred to the Home for Vagrants, while the able-bodied stay on at the House of Detention itself until such time as they can be disposed of by being sent to the plantations, etc., or repatriated. At the Beggars' Camp at Rowley Hill in Bombay, the beggars, we hear, can stay on indefinitely, working for their maintenance.<sup>1</sup> None of these arrangements are entirely satisfactory; there are big gaps which have to be bridged before the City Acts can become both deterrent and corrective. Still something has been done by these cities, whereas if we turn to Madras we are still in the stage of various Bills being brought before the Legislative Council, some to be thrown out altogether, and some to be delayed indefinitely on some pretext or other. We have even had Committees to inquire into the question. On 29th January, 1924, the Corporation of Madras appointed a Committee 'to consider and formulate proposals for the prevention of professional begging in the city of Madras.'<sup>2</sup> One of the recommendations of the Committee was that magistrates should be given discretion to commit able-bodied beggars to workhouses or settlements.<sup>3</sup> It is now nine years since the Corporation Committee on Beggar Problem reported and we are still awaiting the starting of the certified workhouse visualised in the recommendations of the Committee. The real difficulty seems to be lack of funds. Missionary Societies like the Salvation Army have repeatedly assured the Government of

<sup>1</sup> Indian Economic Journal, Vol. VIII, 1927-28. "The Street Beggars of Calcutta" by B. N. Ganguly.

<sup>2</sup> Report on the Beggar Problem, p. 1. (Madras Corporation Committee, 1924).

<sup>3</sup> Report on the Beggar Problem, p. 6. (Madras Corporation Committee, 1924).

their willingness to manage the institution provided the funds for both starting and for maintaining the institution are forthcoming. In Colombo, the cost of the Vagrants' Home is borne in equal shares by the Ceylon Government and the Colombo Municipality, while the Bombay Beggars' Camp is said to be financed entirely by private citizens. The purse of the Madrassee not being as elastic as that of the Bombay citizen, cannot be expected to bear the full cost of any scheme for detaining the able-bodied beggar, and our Beggars' Camp, if and when it is started, will have to be financed both by the Corporation and the Local Government. So far, the Government have not shown any willingness to initiate a scheme of this type. Whenever the attention of the Government is drawn to the fact that the law as it stands is useless in the absence of Homes for Beggars, and therefore the Government and the Corporation should initiate schemes for the construction of homes of this type, the invariable reply has been that as begging is tolerated both by the Hindu and the Muhammadan religious law, and also by the public generally, a scheme for the compulsory committal of beggars is not likely to commend public approval or sympathy. But this is far from being a correct gauging of the situation. The Madras Beggar Problem Committee of 1924 framed a questionnaire relating to religious mendicants, and this was sent to a number of representative individuals and philanthropic associations in the city. Some of the points emphasised in the questionnaire were the following:—<sup>1</sup>

(1) Is professional begging sanctioned by the canons of religion professed by the mendicant in question?

(2) Are the religious mendicants under the control of the spiritual heads of their denominations?

(3) Will legislative control of religious mendicants be regarded as an encroachment on religion?

(4) Should religious mendicants be licensed?

The answers elicited from the public to these questions clearly prove that neither the Hindu nor the Muhammadan religion tolerates indiscriminate begging of the type that is so common in our streets. Hindu opinion on the whole was inclined to the view that although begging is permissible among those

Hindus who really renounce the world; most of those who are found in the garb of the *Sanyasi* are more rogues than religious people who have taken the vow of poverty. This was also the opinion of the religious heads consulted by the Bombay Government Committee on the Beggar Problem. The answers on the whole show that 'the Hindu Scriptures condemn indiscriminate charity but the religion of the masses tolerates it. Muhammadan opinion was not equally unanimous. The Government Kazi was of opinion that Muhammadan law allows begging in case of poverty and it should not be prohibited by law. Others were of opinion that Islam does not sanction religious mendicancy, and much less professional beggary, and that legal prohibition will not mean encroachment on religion.'<sup>1</sup>

Almost all the persons consulted condemned the system of licensing religious mendicants. Also, the general opinion was that the spiritual heads of the different religions exercise little or no control over these mendicants. From all this it is quite evident that neither the Hindu nor the Muhammadan religion tolerates professional begging even when the beggars happen to be the so-called religious mendicants like the *Sadhus*, the *Bairagis* and the *Fakirs*. Nor is public opinion likely to be offended by the compulsory committal of sturdy vagrants. Public opinion has been sufficiently articulate for a long time to convince anyone who wants to be convinced that the phenomenon of professional begging is a blot on the fair name of our city and that something drastic must be done to eradicate the evil. We hear that a bill is shortly to be introduced in the Hyderabad Legislative Council to deal with the social evil of begging in the Nizam's Dominions. The Draft Bill published in the *Hindu* of the 25th August, 1932, has provisions for the establishment of poor-houses and workshops, and for the compulsory committal of beggars to these homes. The Bill when passed is to be enforced first in the city, but if the Government find it necessary it can be extended later on to other parts of the Nizam's territories. It looks as if this is going to be the first comprehensive Vagrancy Ordinance in India. Is it not time that Madras got beyond the stage of mere talks and idle criticisms, to something more

practical? The City Police Acts need amendment, but mere amendment will not cure the evil; we must both amend the law as well as carry out the provisions of the Acts. The responsibility for this apathy and inactivity can no longer be laid at the door of the private citizen, for as early as 1930 Mr. F. E. James, non-official member of the Legislative Council, drafted a Bill 'to provide for the better controlling of beggars in the city of Madras.' For various reasons the Bill has been unnecessarily delayed and we are not sure of its future.

## II. THE INFIRM BEGGARS.

The infirm group is a mixed one composed of beggars of various types, the aged and the disabled, the incurably stricken like the lepers, the blind, the deaf-mutes, the insane and the congenitally feeble-minded. Each type here requires special treatment and for this reason the mixing up of all these in the same institution as it is done at present is to be condemned. The old and the disabled could be looked after in the same institution, but the deaf-mutes and the blind require special training which can only be imparted in institutions specially designed for it. The congenitally feeble-minded present problems which cannot be adequately dealt with in institutions. The best we can do for them is to place them in sympathetic surroundings, but it is very difficult to provide such an atmosphere, and so far nothing has been done in our country to ensure such environment for those unfortunates. These are to be found in all pauper institutions, and orphanages, mixed with other types of disabled people. Roughly the infirm group can be classified under the following heads:—

- (a) The old and the disabled.
- (b) The incurably diseased.
- (c) The blind and the deaf-mute.

### *(a) The Old and the Disabled.*

The temporarily disabled if properly taken care of, will sooner or later be able to look after themselves and thus cease to be a burden both to themselves as well as to the community. The permanently disabled and the really old, need

looking after for the rest of their lives, and for both these we want infirmaries and rest-houses. A system of Old Age Pensions common in the West would be a great boon to some of these, but it may be too early to suggest a scheme of that type for India.

### ENDOWED INDOOR CHARITY.

As far as institutions for the infirm are concerned, the city of Madras has a good record. There are three big institutions in the city, besides a host of smaller ones maintained by separate communities and religious denominations for the care of their own indigent members. The big institutions are the Monegar Choultry, the Corporation Poor House and the Friend-in-Need Society's Home—the first two for Indian paupers of all castes and creeds, and the third for the European and Anglo-Indian paupers. In theory at least, all three are poor houses in the best sense of the term as they undertake 'to feed, clothe and shelter the destitute and infirm'. The main activity of these homes centres round indoor charity but the Friend-in-Need Society's Home dispenses a good deal of outdoor relief also. The majority of the inmates of these institutions are from the city, but outsiders from the Presidency and even from other parts of India are not excluded if the management feels that these are deserving cases.

### THE MONEGAR CHOULTRY<sup>1</sup>

The oldest of these homes is the Monegar Choultry next to the Government Royapuram Hospital, founded in 1782 at the time of the war of Hyder Ali with the British. The Choultry owes its origin to the Monegar or village headman who founded it with the aid of funds collected from private sources, in order to feed and shelter the paupers whom the miseries of the war had driven to the city—hence the name Monegar Choultry. The present premises of the Government Royapuram Hospital were the original site of the Choultry, but when Government acquired that site for building the hospital,

<sup>1</sup> Vide Pamphlet on the "Origin and History of the Monegar and Rajah of Venkatagiri Choultries."

the paupers were removed to the Venkatagiri Choultry compound where they are now lodged in buildings put up at Government expense. The Choultry has now property and assets to the value of Rs. 117,500 which yield an annual income of about Rs. 10,000, but the total receipts for 1931-32 was Rs. 11,761 which includes an annual grant of Rs. 1,000 from the Corporation.<sup>1</sup> The income from the endowments appertaining to the Monegar Choultry is to be applied to 'the sheltering, feeding and clothing of the destitute, the incurably stricken poor, and to relieving as far as possible the distress of such indigent persons as are not in a condition to work for and earn their own livelihood.'<sup>2</sup> The Choultry could accommodate up to a maximum of 150 in its present buildings, but the funds at the disposal of the home at present cannot afford to shelter more than about a hundred. The institution is run economically as far as feeding is concerned, the average daily expense per head being 2 as. 5 ps. in 1931-32 as against 2 as. 9 ps. of the previous year.<sup>3</sup> This works out to Rs. 4-8-0 monthly, which perhaps is not a big sum considering the quality and quantity of the food provided. For all practical purposes the Choultry is a Government institution, Government-endowed, Government-controlled and Government-audited. The Surgeon of the First District whose office is near the Choultry, is the Honorary Secretary and Treasurer, with absolute control over the management of the institution, subject to the confirmation of the Board of Directors. A resident Superintendent is in charge of the daily routine administration. The relief administered here seems on the whole to be a discriminating one, the inmates being mostly old and infirm, a good number of whom are sent here from the Government Royapuram Hospital. To this extent we may even call it a convalescent home for the city paupers. But this makes the inmates more a floating population, though there are some who have been in the place for a number of years, thus attesting to some extent, to the popularity of the home. There is no workshop attached to the Choultry, so that even those who are not too ill or too

<sup>1</sup> Vide Corporation of Madras Administration Report, 1930-1.

<sup>2</sup> G. O. No. 59. Home (Miscellaneous), dated 23rd January, 1917.

<sup>3</sup> Corporation of Madras Administration Report, 1930-31.

old to work, cannot be made to contribute something towards the upkeep of the institution. Also, as the law stands no pauper can be compelled to stay in an institution. The authorities are naturally a bit nervous about placing undue restrictions on the freedom of movement of the inmates. If the craze for wandering comes over him there is nothing to prevent the pauper inmate leaving the institution except perhaps the fear of starvation, and if the allurements of the road are too strong for him, he may never return to the home, or return only when the police gets hold of him and sends him back.

*The Corporation Poor-House.* The Corporation Poor-House started on the 17th November 1927 as a result of the Resolution carried in the Corporation Council on the 18th May, 1926, is housed in the old Leper Asylum at Tondiarpet. It is fully financed by the Corporation though there are a few private endowments for special treats on certain festival days. The home was started with 39 inmates gathered with great trouble from the streets of the city. The number rose to 44 in December, but fell to 41 in January of the next year. Dismayed, the authorities made a superhuman effort to scour the streets once again and in February the number on rolls rose to the tremendous figure of 104 and thereafter the success of the Home was assured. The number on rolls at present fluctuates from month to month at about 150, the number actually on rolls when I last visited the institution on 4th September 1932 being 170 of whom 50 were women. The present buildings can accommodate about 500, and the compound is spacious enough to put up more buildings to take in another 500. The maximum capacity of the place is about 1,000 provided the buildings are there and the funds for running the institution are guaranteed. Here then we have the nucleus of a poor house that can be gradually built up so as to take in at least all the old and infirm beggars that are still at large. Room can also be found in the same locality for the House of Detention with workshops attached, for the sturdy beggar. But the scheme cannot be worked out unless more funds are forthcoming, and it is impossible for the Corporation to bear the whole burden. The grants from the Corporation so far are sufficient to maintain only about

150, the grant being Rs. 20,000 in 1931-32 which has been reduced to Rs. 15,000 for the current year. The average monthly cost per pauper for feeding came to Rs. 6-6-0 in 1930-31 and Rs. 5-4-0 in 1931-32.<sup>1</sup> One wonders why with larger numbers the Home cannot be run at least as economically as the Monegar Choultry, where a pauper for the whole month was fed on Rs. 4-8-0, while an extra twelve annas is necessary for feeding him at the Corporation Home. Twelve annas for each pauper works out to Rs. 1,350 yearly for 150 beggars. The menu at the Corporation house is certainly more elaborate, but the food at the Choultry is by no means poor. The paupers, they say, prefer the Corporation Home, naturally, because of the number of special treats, and the Monegar Choultry not to make itself unpopular, is forced to make up the deficiency on the feeding side by giving greater freedom of movement to the inmates. It would be far better if the Corporation and the Government could find their way to the framing of certain standardized rules regarding food and the freedom of movement of the inmates, and make these rules applicable to all pauper institutions receiving grants from public bodies. This would ensure greater co-operation and lesser friction. The management however is not responsible for certain avoidable waste and duplication of relief at the Corporation Poor House; the terms of certain well-meant endowments make such duplication inevitable. Here too, there is no workshop attached, and hence the inmates lead a lazy life, contributing little or nothing towards the upkeep of the home.

*The Friend-in-Need Society's Home (The F.I.N.S. Home).* This home is in Egmore, next to the School of Arts, and the institution looks after the destitute European and Anglo-Indian. Both indoor and outdoor charity are sanctioned by the Articles of Association of the society. Hence, besides running a home for the feeding, clothing and sheltering of the indigent, the society also allots pensions to those in whose cases exceptional circumstances render them fitter subjects for outdoor relief; it also grants certain scholarships, and meets the school fees of pauper children. The average number of

<sup>1</sup> Corporation Poor House does not publish Annual Report. Information can be obtained from the Superintendent.

inmates for the year 1931 was 103, which represents an increase of 28 over the previous year. During the year 1931 a sum of Rs. 22,303 was spent on various items of relief as detailed below :—<sup>1</sup>

Indoor relief	...	...	...	11,210
Monthly pensions for 92	...	...	...	10,036
Clothing, outdoor and indoor	...	...	...	169
School fees and scholarships	...	...	...	888

As many as 1,992 individuals and 268 families representing 670 persons applied for relief during the same year. The Government gives an annual grant of Rs. 15,000 to the Home and the rest of the expenses are met from incomes accruing from private endowments, donations and subscriptions.

The F.I.N.S. Home presents some features alien to the two Indian pauper houses. There are no kitchen establishment charges here, as relief is given not in the form of cooked food but as daily allowances of 3 as. 6 ps. per adult and 2 as. per child. The inmates can buy food if they choose to do so from the home kitchen itself where some of the able-bodied paupers on their own responsibility prepare and sell food, the matron in charge exercising some control over the quality of the food and the quantity which is given for the anna which is the price for a plate of rice and meat curry. Two annas for two meals would still leave a balance of one anna and six pies to be spent on coffee, tea, hoppers etc. True, in this system there is the danger that the money might be spent on drink or wasted in other ways, and this certainly does happen occasionally, but the home has a strong vigilance committee to inquire into all applications for relief and to detect cases where the relief is wasted on drink or drugs. The inmates being Christians, the institution can always count on the willing co-operation of the priests and ministers who generally are in intimate touch with their indigent parishioners.

In the Indian poor houses Nair cooks are engaged, and we cannot help remarking that this is an unnecessary charge since the inmates themselves could be trained to do the work. Unfortunately the law does not compel even the able-bodied

<sup>1</sup> Report of the Friend-in-Need Society, Madras, 1931.

pauper to work and it is too much to expect of his moral sense to give voluntarily what he is not compelled to give legally. Any attempt therefore on the part of the management to extract work from the inmates might lead to grumbling, and to threats to leave the institution, and when the public is so anxious to shut him up, it would not do to let him out. Caste difficulties also complicate the problem; the poorer the man is, the more anxious he seems to be caste-ridden in our country, and the authorities, in the absence of a satisfactory vagrancy law, have no alternative but to pamper the pauper and to give in to all the idiosyncracies of caste and creed. As a poor nation our object should be to get the most out of all our expenditures; this means that we cannot afford some of the irrational and expensive demands of caste.

The provision of workshops where inmates as well as outsiders can seek and find work is another real advantage in the F.I.N.S. Home. Women especially can find work in sewing, washing, pounding *ragi* and making curry powder. During the year ending 31st December 1931, the inmates earned Rs. 253-14-0, and the sale of *ragi*, curry powder and dusters realized Rs. 842-9-3, thus making a total of Rs. 1,096-7-3.<sup>1</sup> This is not a negligible amount and it is time that the Indian paupers left off their idle habits and imitated the example of their more enterprising brethren. The law is the same for all, and if in spite of the absence of the necessary vagrancy law, the F.I.N.S. Home has been able to get so much work out of the paupers, why should not the Indian management also extract some work out of the Indian paupers? In the reports published annually, by the F.I.N.S., there is always a long waiting list of paupers who want to become either inmates of the Home or be given outdoor relief. Contrast this with the anxiety of the management in the Indian homes to retain the paupers in the institution at any cost. It gives one the impression that while relief is sought for in the F.I.N.S. Home, relief has to be made specially attractive to persuade the Indian to seek the shelter of the poor houses. Some of the extra attractions of the Indian houses are the freedom from liability to do work of any

<sup>1</sup> Report of the Friend-in-Need Society, 1931.

kind, the freedom to go in and out of the house, and the certainty of a number of special treats during the year. Maybe, the destitutes for whom the F.I.N.S. Home caters, do not take kindly to street begging; the Committee on Beggar Problem appointed in 1924, counted only one Anglo-Indian beggar. This may be an exaggeration, yet the fact is there that street begging is not in his line, and he prefers charity gained in some other way, either soliciting alms from house to house, or applying to a charitable institution. The Indian pauper on the other hand seems to be a child of the road, preferring its freedom, and its precarious existence to the easy life of an institution. But even he, undisciplined though he be, would not choose the freedom of the streets, if he were not sure that charity in some other form would come to his aid and enable him to keep body and soul together. Professional begging in India, in spite of all its humiliations, its physical and moral degradations, its filth and diseases, and above all, its precarious nature, is deemed a lucrative trade and as long as this is so there must be some amount of street begging unless the law against vagrancy and public begging is strictly enforced. A rich harvest of outdoor relief, both endowed and casual, make begging a lucrative profession in the city of Madras. Much of this relief is indiscriminate, especially the casual outdoor relief, which because of its haphazard nature, dispensed on the spur of the moment, is guided more by sentiment, either of sympathy or of aversion than by any idea of the merits of the case.

#### ENDOWED OUTDOOR CHARITY

*Annadana Samajams.* Among the provisions for endowed outdoor relief in the city of Madras, the Annadana Samajams claim our attention first. There are a number of these Samajams in different parts of the city for feeding the poor, but the only ones worth mentioning are the Chennapuri and Triplicane Annadana Samajams, as these two alone are sufficiently endowed to ensure continuous working. All the Samajams, even those which exist only in name, have as their main idea, the founding of homes for the poor. In the Articles of Association of the Chennapuri and Triplicane

Samajams, it is expressly stated that the object of these Samajams are 'to establish a poor-house permanently, to feed and clothe on occasions poor people (without distinction of caste or creed) who are unable to earn their livelihood owing to old age, bodily defects, destitution, or other infirmities.' So far, not only has no Samajam succeeded in realising this commendable object, but what was secondary in the original aims, viz. 'to feed and clothe on occasions poor people' has now been substituted for the primary aim, viz. 'the establishing of poor-houses permanently.' The real difficulty lies in the nature of the endowments, none of which are earmarked for the establishment of poor-houses. The biggest of the Samajams, the Chennapuri, in Park Town tried to start a poor-house in 1915. The story is best told in the words of the Honorary Secretary himself.<sup>1</sup> 'This home was started with six inmates. During the period of thirty months from 1st January 1915 to 30th June, 1917 there were only ten admissions and one death and fifteen withdrawals including those that left the Samajam unnoticed; so that practically there was none in the Poor Home in June 1917. The experiment thus having proved a thorough failure, the said Poor Home was abolished from 1st July 1917.' As early as 1912 this Samajam tried another experiment, to try and make some of the paupers who were daily fed, contribute some light work in rope-making. This industry was carried on regularly, though to a limited extent, till the end of February 1918. Here too the story is best told in the words of the Secretary himself. 'As the men were very reluctant to work, there had been a gradual falling off in the outturn of ropes. This industry has therefore been suspended since March 1918.'<sup>2</sup> Repeated failure has not completely damped the enthusiasm of the authorities. The rope-making industry has begun again, the procedure being the following; about 12 paupers are housed in the Samajam premises and given two meals a day instead of the minimum one meal, and these in return are asked to give two hours' labour daily to rope-making. The men are not obliged to be in the Samajam premises longer than this minimum number of hours, and once this

<sup>1</sup> Report of the Chennapuri Annadana Samajam for 1928-30, p. 70.

<sup>2</sup> Report of the Chennapuri Annadana Samajam, 1928-30, p. 69.

is over they are free to roam the streets again. Professional begging in the city is not a whit less because of the fact that a dozen men are given two meals a day and made to stay two hours during the day in the premises. The only question that need be asked here is whether the rope that is made is worth the extra meal, and all things considered, it could not be, because it costs the Samajam at least two annas to provide one meal to a beggar, and no beggar, even the most conscientious, could turn out two annas' worth of coir in two hours. Thus the experiment is both abortive and expensive.

The main activity of the Samajam centres round the daily feeding of a certain number of beggars at noon, tickets for which are distributed at the premises in the morning between seven and eight. According to the terms of the various endowments each society has to feed a certain minimum daily, the present minimum for Chennapuri being 125 and that for Triplicane, 25. But the actual numbers fed daily are much above this minimum, on some days as many as thousands being fed because of the special feeding undertaken by the Samajams on behalf of private people. During 1930-31, Chennapuri fed as many as 52,628, which gives an average of 163 daily;<sup>1</sup> Triplicane fed during the same period 30,334 adults and 1,305 children, which means an average of 83 per day.<sup>2</sup> Some amount of discrimination is exercised in the distribution of tickets to ensure that the recipients are deserving, but there is no fixed or definite roll, the paupers to be fed being selected anew each morning. On days when thousands have to be fed because of special feedings, it is too much to expect the recipients to be all deserving cases. A good deal of well-meant private charity thus goes to waste, but this waste could partly at least be avoided if the donors could be persuaded to let the management exercise its discretion to distribute the charity on different days. This we are told is not generally possible as benefactors specify the exact dates on which the feeding has to be done whether there are enough deserving paupers or not.

Besides the prescribed minimum, Chennapuri feeds also

<sup>1</sup> Report of Chennapuri Annadana Samajam for 1928-30.

<sup>2</sup> Report of Triplicane Annadana Samajam for 1930.

200 boys of the Brahmo Ragged Boys' School in George Town and V. Subramaniam Free School; for purposes of feeding all the 200 boys are counted as only about 90, and every two children who lead the blind are counted as one, so that the actual numbers fed daily are much larger than the figures usually given. Special feeding on behalf of private people is undertaken by the Samajams at the rate of Rs. 12-8-0 per hundred for ordinary feeding and Rs. 17-8-0 for sumptuous feeding. Chennapuri on the 30th June, 1930 had assets to the value of Rs. 1,43,170-1-11 with an income of Rs. 13,557-8-10<sup>1</sup> and Triplicane had assets to the value of Rs. 28,822-3-11 with an income of Rs. 6,217-8-1.<sup>2</sup> Annual grants of Rs. 800 and Rs. 300 are given by the Corporation to Chennapuri and Triplicane respectively. The property and assets of both these Samajams are due entirely to private endowments.

While fully appreciating the generosity and charity of the men who have so richly endowed these Samajams, we cannot help remarking that relief of the type that these societies provide must necessarily result in the squandering of a good deal of valuable resources, chiefly because of its indiscriminate character which follows as a natural result of its being outdoor relief. These are the days of Scientific Management and Rationalization, and while every other nation is trying to husband its resources, it is foolish on our part to look with equanimity on our national extravagances. Not only is the Samajam charity often indiscriminate, it is also unnecessarily expensive. The Monegar Choultry feeds a pauper thrice for about two and a half annas, but the Annadana Samajams need the whole of this amount almost to feed him once. In relation to the amount of relief dispensed, the establishment charges are high at Chennapuri. Nor is professional begging in the city any the less because of the daily Samajam feedings; if anything it has the tendency to encourage the profession and practice of begging. The early bird gets the worm, but once the tickets are secured there is an interval of at least four hours during which the beggar is free to roam the streets and ply his miserable trade to the great annoyance

<sup>1</sup> Report of Chennapuri Annadana Samajam for 1928-30.

<sup>2</sup> Report of Triplicane Annadana Samajam for 1930.

of the unfortunate city-goers. He returns in time for the noon meal, but the meal over, he has still the whole afternoon to wander. There is no doubt that charity of the type that these Samajams provide is partly responsible for the disinclination of the Indian paupers to seek the shelter of the poor-houses. An assured meal a day is ample guarantee for existence, especially for the Indian whose life is a long series of privations. It is marvellous what staying power we as a nation possess in spite of our bad physique and the poor and insufficient food that we consume. Many another perquisite also falls to the lot of the wandering beggar; there is always some refuse food thrown by hotels and restaurants; all city-goers are not equally hard-hearted; some out of sympathy, some in spite of themselves do spare a few coppers now and again, and each beggar thinks that his scrip has as good a chance as that of his neighbour for collecting these, and no doubt, he is often right. Hence, mere outdoor feeding which involves the letting loose of those who are fed, is neither the cheapest nor the sanest way of relieving destitution nor of putting an end to professional begging. If anything, it has the opposite effect. Why should not the Annadana Samajams centralise their resources so as to realise as early as possible their original object of founding a poor-house? The Samajams premises, as they are, are unsuited for housing beggars. The Corporation Committee on Beggar Problem recommended that poor-houses be founded near enough to the Samajams, so that the inmates could be fed with food from the Samajams. This would certainly be a right step if only Triplicane and Park Town were not the congested areas they are. The poor-houses if built will have to be in the same area as the Samajams so that cooked food may be sent from one place to the other. All this seems very complicated and one is tempted to ask why should not the Samajams give up the indiscriminate outdoor feeding, pool their resources and establish either one big poor-house, or join hands with the existing Corporation poor-house and enlarge the scope of that institution? This would mean reversing the terms of some of the big Samajam endowments and such reversing always presents insuperable difficulties.

It is not against charity as such that we are inveighing,

but against charity of the type that cheats the giver and pauperises the receiver, and from all that has been said, it is only too evident that though many a stomach would feel more acutely the pangs of hunger but for the feeding done by these societies, the temporary appeasing of these pangs alone, is almost all the good that results from so many well-meant, but sadly misguided generous endowments.

### THE VENKATAGIRI CHARITIES

Besides the Annadana Samajams, we have the charities of the Venkatagiri Choultry, an institution with an endowment of a lakh and two thousand rupees, the income from which ever since 1920 is entirely devoted to outdoor relief. The relief is given in the form of raw rice, the rice being given for the whole month in advance on the second of the month at the rate of two ollocks per day per pauper. The number on roll in September 1932, was 220, consisting of paupers of both sexes, women predominating. In 1931-32, the daily average number of outdoor paupers receiving rice doles was 205 as against 160.4 in the previous year. The Choultry spent a sum of Rs. 3,272 on rice doles in 1931-32, the average monthly cost of rice per pauper being Rs. 1-5-3, during the same year.<sup>1</sup> The relief given here is more economical than that of the Annadana Samajam, where it would cost about Rs. 3-12-0 to give one meal a day for the whole month. The Superintendent is anxious to assure the public that the relief that is disbursed is on the whole a discriminating one, and let us hope that the recipients are the deserving paupers. The Venkatagiri Charities are to be administered without distinction of caste and creed, but the majority of the recipients are caste and gosha widows who are supposed not to take kindly to street begging, and who, but for these doles would be left even more destitute. To this extent we may regard the Venkatagiri Charities as dealing more with destitution than with professional begging, but in so far as the latter is invariably the result of the former, any measure that deals with destitution must necessarily have its effect on public begging also. Complaints are occasionally heard that the

<sup>1</sup> G. O. No. 2383, L. & M., 20th June 1932—Administration Report—Monegar Choultry and Raja of Venkatagiri Choultry.

recipients of these doles are found begging in the streets, but the only way of dealing with this evil is to enact a strict vagrancy ordinance.

#### THE TRIPPLICANE LANGARKHANA

This is a special institution maintained at a monthly cost of Rs. 400 for indigent Muhammadans. The institution is the result of an agreement between the British Government and the Nawabs of the Carnatic. Originally the Langarkhana was an alms-house with more than 100 inmates and the original agreement between the Nawabs and the British Government seems to have been the maintaining of a poor-house for indigent Muhammadans by the Government with the income accruing from the endowments of the Langarkhana. At present all that remains of the old poor-house in Chepauk is a small office which may have been the original kitchen. This room is now used as an office for doling out outdoor relief in the form of raw rice at seven and a half measures per pauper per month. The income is sufficient to give relief to about 300 paupers. If the spacious compound at Chepauk where the office is, still belongs to the Langarkhana, this is ample space for building a poor-house, and if sufficient funds are forthcoming, the old alms-house might again be revived. If the buildings were there even with the present funds, about forty or fifty paupers could be fed, clothed and sheltered. Muhammadan opinion may have something to say in the matter.

Besides the Langarkhana, there is another fund for distributing relief to gosha and non-gosha widows of the community—the Muhammadan Female Aid Charity Fund.<sup>1</sup> This too seems to have been originally contributed by the Nawabs to which are now added subscriptions and donations from private people. Relief is given at the rate of Rs. 2-8-0 monthly to gosha widows and one rupee to non-gosha widows. Clothes are distributed at Ramzan time. During the year 1930, a sum of Rs. 1,800 was distributed to gosha women and Rs. 780 to non-gosha women. This means that about sixty gosha and sixty-five non-gosha women were given relief from this fund.

<sup>1</sup> Corporation of Madras, Administration Report, 1930-31.

A discussion of this type would be incomplete if it leaves out of account any special provision that may exist in the city for the relief of the sick and indigent of the Christian community. The Friend-in-Need Society's Home, as we have seen, is an exclusively Christian institution in so far as it concerns itself only with the European and Anglo-Indian paupers. The Corporation Poor-House and the Monegar Choultry, the Annadana Samajams, and the Venkatagiri Charities are all above caste and creed, but the majority of the recipients of these charities are Hindus, belonging to the Depressed classes. There is no one big poor-house in the city for the exclusive relief of indigent Indian Christians, but there is a whole network of Christian charity, both Catholic and Protestant, a detailed description of which is beyond the scope of the present paper. Suffice it to remember that relatively to her resources and to her numbers, the Church has met the various forms of distress more adequately than any other agency or system. In its charitable bequests and in the readiness of millions of its followers to sacrifice all 'for love of neighbour', Christianity gives expression to the conception of love and brotherhood which Christ brought into the world. Christian endeavour has been foremost even in the city of Madras, in the maintenance of hospitals, and reformatories, rescue homes, like the Salvation Army Rescue Home, and the Home for fallen women maintained by the Good Shepherd Nuns; asylums for homeless infants, orphans, the aged and infirm, like the many Christian orphanages of the city; institutions for the deaf, the dumb and the blind like the Deaf and Dumb Schools at San Thomé and Teynampet. More than any other religious organisation, it is easier for the Christian Church to get into touch with the indigent members of the Parish, as the last resort of the indigent parishioner is generally the local minister.

*(b) The Incurably Diseased.*

The only two classes that I mean to consider here are the lepers and the insane, and of these, the lepers must claim our attention first as they are in one sense greater outcasts than even the mentally disabled. Also, the general feeling is very strong that they are a source of danger both to themselves

as well as to the community if they are allowed to roam at large and intermingle with others. The Memorandum on the method of conducting anti-leprosy campaign in India, published by the British Empire Leprosy Relief Association, India Council, suggested that perhaps segregation is not the most appropriate method of dealing with lepers, as financially it would be impossible, and any attempt to impose compulsory segregation would drive patients who are suffering from earlier stages of the disease to conceal their misfortune. While the Memorandum did not minimise the usefulness of homes and asylums for the care of the lepers, it strongly recommended that for the present at least efforts must be concentrated upon the establishment of dispensaries so as to induce patients to come forward at an early stage.<sup>1</sup> In the light of this Memorandum, the principle of compulsory segregation seems to lose some of its force, but public opinion very strongly favours the principle. It is not difficult to reconcile these two somewhat opposed principles, if we remember that pauper lepers form only a small fraction of the leper population, and that the disease is common among all classes of the community, so that the well-to-do patients could be persuaded to seek relief at the dispensaries, and the pauper, who is invariably found in the streets, could be compulsorily segregated in the existing asylums. The Indian Leper Act, 1898, provides that a pauper leper found begging in the streets may be arrested by any public officer and be committed to an asylum. Since 1920, power has been given to the Provincial Governments to deal compulsorily if they wish to, with pauper and begging lepers who do not conform to certain rules. So far, only a few Provincial Governments have tried compulsory segregation, and Madras could not be one of them, as the wandering leper with open sores is still a common sight in our streets and public resorts. According to the census of 1921 the proportion of lepers to every 100,000 of the population was 32 for all India, and 37 for Madras. Dr. Muir, the Superintendent of the School of Tropical Medicine and Hygiene in Calcutta seems to think that this is an underestimate, not only because census figures are notoriously inaccurate as regards such facts, but also because in the case

<sup>1</sup> Indian Year Book, 1931, p. 618.

of leprosy there is a good deal of deliberate concealment by individuals. Dr. Muir is of opinion that there must be from half to one million people in India who suffer from this terrible disease and of these only about half are in institutions.<sup>1</sup> We have about a dozen Leper Asylums in the Presidency, the premier one being the Lady Willingdon Leper Settlement at Thirumani in Chingleput district, started in 1925 with the lepers who were transferred here from the old Leper Asylum at Tondiarpet. The institution though financed entirely by the Government is managed by the Scottish Christian Mission. It can accommodate about 500, and if more funds are available it could easily be enlarged to take in another 500. The Committee on Beggar Problem counted only 109 pauper lepers in the streets and if more dispensaries are established for outdoor treatment, lepers who are not too poor and who have homes of their own (if the disease is still in its early stages), could be persuaded to seek outdoor treatment and the homeless pauper could be sent to the asylums. At present lepers from all classes of the community, as well as from all parts of India, seek the shelter of the Lady Willingdon Leper Settlement, and the authorities have to refuse admission to many for lack of accommodation. Leprosy for many reasons is an all-India problem which cannot be tackled by Provincial Governments in isolation. If pity for these outcasts does not prevail on us, at least the sense of public danger ought to arouse our civic consciousness and compel us to do something more for these unfortunates.

The really demented seems to be much better provided for. The insane if he is really destitute is hardly ever allowed to wander, but is compulsorily segregated and taken care of by the State. We have three lunatic asylums in the presidency, in Calicut, Waltair, and Madras. The biggest one is the one in Madras, at Locock Gardens, Kilpauk. The census of 1921 gives a proportion of 33 for males and 22 for females for every 100,000 of the male and female population respectively.

Voluntary agencies, especially the Christian Missions are responsible for a good deal of leper relief both in India and Burma; even when the cost of the leper relief is borne

<sup>1</sup> Indian Year Book, 1931, p. 618.

entirely by the State, a Christian Mission makes itself responsible for its administration. The relief for the insane is done mainly by the State.

(c) *The Blind and Deaf-Mutes*

These two classes are treated separately because they need institutional treatment of a kind different from the one given to lepers and the insane. The main object of the treatment is to train these unfortunates to be useful both to themselves as well as to the community. Such training has also as its object, the infusion of cheer and gladness into the lives of these people.

Blindness and deaf-mutism on the whole are incurable defects, but as there is no question of public danger if these are allowed to roam at large, the principle of compulsory segregation does not apply to them. But if the law against vagrancy and professional begging is strictly enforced, much of the blindness and deaf-mutism that are now being exploited by relatives and others in order to extort charity from the public, would disappear from our streets; but it would be cruel to enforce such a law until the necessary institutions for sheltering these are provided. The existing provisions in the city are very inadequate and what little provision there is, is due mainly to the initiative of private bodies, though such private institutions receive certain grants from the Government or the Corporation.

For the blind there is the Victory Memorial Institute at Poonamallee, opened on 1st November, 1930. It is supported by private contributions aided by grants from public bodies. When I visited the institution in 1931, there were about 50 inmates of both sexes and of all ages. The institute has ample buildings and spacious grounds and if we could only find the funds for running the institution, its scope can be easily enlarged. Blindness is one of the most prevalent of tropical maladies, and the blind form a fairly appreciable element among the indigent poor—naturally, as total blindness is generally the result of early neglect. The Madras Beggar Committee counted 208 blind paupers, and even granting that the number has not increased much since that date, we still want a much bigger institution than the existing

one, to cope with the whole problem of blind paupers. The Victory Memorial Institute imparts instruction of a graduated kind, at the end of which the blind are able to engage themselves in handiwork of different types like weaving, rattan-making etc.

Deaf-mutism is practically always congenital, and like blindness, often an incident of poverty. With proper training these too can be made self-supporting. There is no Government or Corporation institute in the city of Madras for the training and sheltering of the pauper deaf-mutes; there are two private institutions, one in San Thome, maintained by the Protestant Mission to which the Corporation gives certain grants, and the other in Teynampet, belonging to the Catholic Mission. The deaf-mute is not as common a sight in the streets as the blind, and the Committee on Beggar Problem counted only 39 of these.

### III. THE JUVENILES

The juveniles are a class by themselves in so far as they are unable to support themselves; being dependent on others, they are likely to be exploited for immoral and illegal purposes by parents, relations and others. All civilized countries have therefore special statutes for the protection of the child, especially the destitute child, in whose case the danger of exploitation by others is far greater. In Madras we have the Madras Children Act, No. IV, of 1920, the main portions of which deal with juvenile delinquency, and though in this paper we are concerned more with child beggars than with child delinquency, the latter like many other social ills, is often an accompaniment of poverty. Even when such delinquency is traceable to some congenital defect, this defect in turn may be the effect of the destitution of the parents which cast them in an environment of crime, drunkenness and prostitution—a vicious circle from which there seems no escape.

Part IV, Section 29, Madras Children Act, 1920, contains the following provisions regarding the destitute child found wandering in the streets:—<sup>1</sup>

‘Any person apparently under the age of 14 years is (a) found wandering, and not having any home or settled

<sup>1</sup> The Madras Children Act, 1920 (Madras Act No. IV of 1920).

place of abode or visible means of subsistence, or is found wandering and having no parent or guardian, or a parent or guardian who does not exercise any proper guardianship; or (b) is found destitute, not being an orphan, and having both parents, or his surviving parent, or in the case of an illegitimate child, his mother undergoing transportation or imprisonment; or (c) is under the care of a parent or guardian who by reason of criminal or drunken habits, is unfit to have the care of the child; or (d) frequents the company of any reputed thief, may be brought before a court by any police officer or other person authorized by the Local Government, and the court may authorize him to be sent to a Junior Certified School.'

These are provisions for dealing with the destitute and orphan child found wandering in the streets, or found in the company of undesirable people. The Act does not contain any provision for dealing with the child who begs in the street either on his own responsibility or on the responsibility of his parent or guardian. One of the avowed objects of the appointment of the Madras Corporation Committee on Beggar Problem was to 'formulate proposals for stopping minor boys and girls from being used as beggars and mendicants by their parents or others having the care of them.' The Committee recommended that the Children Act of 1920 should be amended so as to make begging also a crime punishable under the Act. Just lately Mr. A. B. Shetty drafted a Bill to amend the Madras Children Act, 1920 so as to include within the terms of the Act 'any young person who is found in any street or place of public resort begging or receiving alms (whether or not there is any pretence of singing, playing, performing, offering anything for sale or otherwise), or being in any such street or place for the purpose of so begging or receiving alms.' The Select Committee on the Draft Bill reported that without the provision of a sufficient number of Rescue and Remand Homes and of Poor Houses, it is impossible to give effect to many of the clauses of the Bill, and the present finances of the Government do not admit of such expenditure.<sup>1</sup> The Committee thought therefore that no useful purpose will be served by proceeding with the Bill at

<sup>1</sup> *The Hindu*, 27th October, 1932.

present. Mr. Shetty therefore consented to withdraw the Bill from the Council 'in the hope that the Government themselves will take an early opportunity to remedy the defects in the Act and extend its scope of usefulness by an amending Bill as soon as the financial condition improves.' Able-bodied juvenile begging is a problem which we have therefore not yet tackled.

Till the year 1925 practically nothing had been done to enforce even the other provisions of the 1920 Act; non-official bodies then began to interest themselves in seeing that the provisions of the Act were enforced, and two valuable societies were organised,—'The Madras Society for the Protection of Children' and 'The Madras Children's Aid Society.' Both these societies have as their main aim, the provision of homes for the destitute and uncared-for children, and the prevention of crime, beggary or vagrancy on their part. To realise this commendable object these societies maintain orphanages, certified schools, remand homes and boys' clubs. The Madras Society for the Protection of Children is in charge of Dr. Varadappa Naidu's Orphanage in Tondiarpet, founded by the late Dr. Varadappa Naidu and now receiving extensive grants both from the Corporation and the Government. This institution was recognised as a Junior Certified School in June 1925, and each certified boy or girl sent here under the provisions of the Madras Children Act, 1920, receives a certification grant of Rs. 10 monthly from the Government. The strength of the institution on the 31st December, 1931 was 88 of whom 62 were boys and all except four out of the 88 were certified.<sup>1</sup>

The work of the Children's Aid Society is more extensive, but its main activities have reference to juvenile delinquency. For the reception of juvenile offenders of both sexes the Society maintains three homes, the Junior and Senior Certified School for Girls, the Remand Home for Boys and Girls, and the Boys' Own Club. The headquarters of the Society is at the 'Retreat', Pursawalkam High Road, and the Certified Schools are located here. Girls between the ages of ten and sixteen are committed to this institution by magistrates throughout the Presidency under the Madras Children Act,

<sup>1</sup> Report of the Madras Society for the Protection of Children, 1931.

1920. The majority of these girls are destitute, girls rescued from houses of ill fame, delinquents, and girls sentenced to transportation or imprisonment. The 'Retreat' has now been purchased for the Society, Government contributing Rs. 26,000 towards its cost, and it is hoped that when more funds can be spared by the Government, it will be possible to provide separate buildings in the spacious grounds of the 'Retreat' itself to house the Remand Home and the Boys' Club, which at present are located in other buildings. The Remand Home started in March 1926 receives boys and girls pending trial for juvenile offences, chiefly theft. There were 85 admissions last year, most of these being destitutes. The Boy's Own Club, under the guidance of the Society's Probation Officer, has as its chief object, the looking after of boys during those first critical weeks or months between discharge from a certified school and their absorption back into normal civil life. Last year as many as 68 boys passed through the Club, and jobs were found for all of them.<sup>1</sup>

So far we have been considering State enterprises for the protection of the destitute and unwanted child, the child that is found on the streets. Even Dr. Varadappa Naidu's Orphanage though started as a private institution is now dependent on the Government for a large share of its funds. But the history of state or municipal activity for the care of the destitute child in Madras fades into insignificance by the side of private achievements in this sphere. The advocacy of the cause of the neglected, persecuted, pauper child is one of the few cases of intelligent philanthropy of which the citizens of Madras may be proud; men and women, the women especially have pleaded most eloquently the cause of the forsaken child. They have not merely pleaded, but have also attempted to do something practical. Even the Certified Schools and Remand Homes are chiefly the result of the pleading of some of the social workers of the city. We have in Madras a number of endowed and non-endowed orphanages, Christian, Hindu and Muslim; industrial schools like the Anjuman Industrial School, the P. T. Lee Chengalvaroya Naicker's Orphanage, the Seva Sadan etc. All communities have co-

<sup>1</sup> Report of the Madras Children's Aid Society, 1931.

operated to look after the unwanted child, so much so, the cry of the child who gets itself lost or abandoned in the streets, the child who is persecuted at home, the child who is hungry, or the girl who has been sold into a house of ill fame—this cry does not always go unheeded now. Christianity, inasmuch as it lays special emphasis on the moral training of the child, has in all ages and in all countries made itself specially responsible for the maintenance and education of the orphan child. Though Christians form only a small minority of the total population of the city, the number of poor children, both boys and girls sheltered in Christian orphanages, asylums, industrial schools and convents, is several times greater than the total number of children in the charitable institutions of all other communities combined. No wonder, the history of Christian enterprises and Christian self-sacrifice for the care of the forsaken, destitute child, is without parallel. A detailed description of these different institutions belonging to the different communities and religions is beyond my scope, and therefore much has to be left to the imagination of the readers who cannot but be familiar with most of them.

We have done something, but what we have done has but touched the fringe of the problem, and much yet remains to be done. It is fatal to pause, for the longer we postpone work of this type the more difficult it becomes to deal with it in future. The interests of the child are the interests of each one of us, rather than the interests of a cold abstract personality like the state; it is easy enough to shift responsibility, but to shift responsibility from shoulder to shoulder is neither the sanest nor the most charitable way of dealing with the situation. Our sense of humanity if nothing else, ought to appeal to us and goad us to further efforts in this direction. The innocent child often finds himself in an illegal or immoral situation for no fault of his, for the reason that those who had the responsibility of looking after him, shirked this responsibility. The best interests of our country also demand that we must gird our loins for further work of this kind; we deal with the present, but we are in fact dealing with the future in so far as the boy or girl of the present is the man and woman of the future; to neglect the child therefore

is to neglect the citizens of the future and to sow the seed for a bad harvest of destitute adults in the years to come.

### *Conclusion.*

The problem of destitution like many other complicated evils of Indian society, is an all-India one which cannot be dealt with by single provinces acting in isolation. The slow operation of sinister causes acting for centuries has contributed to the poverty of the Indian masses, and the problem is already too complicated both in its origin and in its bearings to admit of speedy cure; only, the patient and continued application of intelligent remedies can hope to solve it, and even then it may be years before we are on the road to recovery. The complexity of the problem, however, is no excuse for continued apathy on our part. Poverty is already a millstone round our neck and further neglect must drag us deeper and deeper into the mire. If we do not bestir ourselves, the problem may even pass beyond the control of constitutional remedies. This has happened in other countries and what is to prevent a similar occurrence in our country?

Legislative enactments however well-intentioned and wide in scope, cannot deal with the whole situation, though such measures will certainly have to play a very important part in any scheme of reconstruction designed to bring about a more efficient system of production and a more equitable scheme of distribution. Our concern at present is limited to the question of professional begging in the city of Madras, and here we are in face of a trouble that is more amenable to legislative control. Street begging is but a side issue of the wider problem of destitution and it can be dealt with, if we are determined to tolerate the phenomenon no longer. Briefly, the following is the minimum equipment necessary to clear our streets of the unseemly sights.

First, we must arm ourselves with a comprehensive vagrancy law which can rope in all classes of beggars. The amendment of the City Police Act in the light of suggestions already made will provide the vagrancy law. To deal with the able-bodied adult beggar, we must be prepared to incur the necessary expenses for establishing a Beggar Colony. The

aged and infirm will not tax much the resources of public bodies, since fairly good provisions already exist for this class. Once the vagrancy law begins to be strictly enforced, the need for the outdoor feeding at present done by the Annadana Samajams will automatically disappear, and these societies may be glad to co-operate in the work of providing additional accommodation for infirm beggars. It ought not to be too difficult to readjust the spirit of the Samajam endowments so as to fall into line with new needs and new ideas. It may even be possible to tap a good deal of that casual haphazard charity which we are all guilty of. The pooling of all these resources may be more than ample to provide for a large number of beggars. Additional accommodation must also be found for the incurably diseased like the lepers and the badly stricken like the deaf, the dumb and the blind. The legislation regarding children must be so framed as to make it impossible for the innocent child to be victimized by anyone, either by the child himself or by those having the care of him. The rôle of private agencies in the work of poor relief must be adequately recognised by the State.

None of these suggestions are revolutionary. Other nations have successfully solved the problem of street begging and what is to prevent our efforts from being equally successful?

## APPENDIX: LEGISLATION CONCERNING POOR RELIEF

---

1. *The Madras City Police Act*, 1888 (Madras Act No. III of 1888) (as modified up to 1st April 1908)  
Reprinted by the Superintendent, Government Press, Madras, 1929.
2. *Towns Nuisances Act*, 1889 (Madras Act No. III of 1889) (modified up to 1st February, 1923).

### *Section 3, Clause (8)*

'Whoever in any public street, road, thoroughfare, or place of public resort, so as to cause annoyance, begs or applies for alms, or exposes or exhibits any sores, wounds, bodily ailments or deformity with the object of exciting charity or of extorting alms, shall be liable on conviction to fine not exceeding fifty rupees, or to imprisonment of either description not exceeding eight days.'

3. *Madras City Municipal Act*, 1919 (*Act IV of 1919*)

*Schedule V, Section 4*, authorizes expenditure of municipal funds on 'the provision and maintenance of rest houses, alms-houses, poor-houses, pounds and other works of public utility.'

### *Schedule V, Section 10*

'The Commissioner may with the sanction of the Council and of the Governor-in-Council contribute to any charitable fund, or to the fund of any institution for the relief of the poor or the treatment of disease, or infirmity, or the reception of the diseased or infirm person or the investigation of the cause of disease' (or incur any other extraordinary charge).

---

# A STATISTICAL STUDY OF THE PRICES OF FOODGRAINS IN THE MADRAS PRESIDENCY FROM 1874 TO 1930

## Part I

N. K. ADYANTHAYA, B.A. (Hons.), B.Sc. (Lond.), Lecturer  
in Statistics, University of Madras.

There is a great need at the present moment, especially in view of the tendency we have been noticing for the last three years for prices to fall, to measure scientifically the variations in prices, and to account as best as we can for such variations. In almost all the Western countries from very early times, the movement for keeping scientifically constructed indices of prices of all commodities and also for constructing cost of living indices has found great favour; and to-day arrays and arrays of indices are a common feature of many of their official publications and trade and economic journals. In this country also, we notice to-day such a tendency. The publications of the Department of Commercial Intelligence and Statistics are full of indices of all kinds. Though the Government of India has taken the lead in this, the provinces have been slow to follow suit; yet slowly but steadily, the need for such an agency has been dawning on the minds of the administrative machinery in all the provinces. Prices constitute the crucial problem in Economics; the problem of prices is closely linked up with problems of population, production, banking, currency, and so on, and it is as impossible for the economist to gauge the causes that have led to the variation of prices without a knowledge of these latter factors as it is for the agriculturist to make any satisfactory estimate of yield without a knowledge of the variations of weather.

In this enquiry, the variation in the prices of foodgrains is considered, but it is hoped that this is a prelude to a number of other enquiries in prices, both retail and wholesale, which will embrace almost all the commodities with which

we have to deal in practice. It is also hoped to further extend the scope of our investigations by constructing cost of living indices for this city. But it cannot for a moment be doubted that foodgrains constitute an important item of trade in this country, and that an exclusive study of the same is desirable in the first instance.

The data dealt with in this enquiry have been drawn from the *Statistical Atlas of the Madras Presidency*, revised and brought up to the end of Fasli 1330. This contains the prices of the four principal foodgrains—rice 2nd sort, cholam, cumbu and ragi, recorded for most of the districts upto the year 1921. The prices for the remaining 9 years were obtained from the Board of Revenue.

#### NATURAL DIVISIONS.

The first step in the enquiry was to group the districts and allot them to their respective natural divisions, in order to secure a certain amount of economic homogeneity, and then examine the course of prices in each of the divisions separately.

Below are given the five natural divisions with the districts comprising them.

I. *East Coast (North).*

1. Ganjam.
2. Vizagapatam.
3. Godaveri.
4. Kistna.
5. Guntur.
6. Nellore.

II. *Deccan.*

7. Cuddappah.
8. Kurnool.
9. Bellary.
10. Anantapur.

III. *East Coast (Central).*

11. Madras.
12. Chingleput.
13. Chittoor.

14. North Arcot.
15. Salem.
16. Coimbatore.
17. South Arcot.
- IV. *East Coast (South).*
  18. Tanjore.
  19. Trichinopoly.
  20. Madura.
  21. Ramnad.
  22. Tinnevelly.
- V. *West Coast.*
  23. Nilgiris.
  24. Malabar.
  25. South Kanara.

#### NATURE OF THE PRICES

Throughout the period embraced in the enquiry monthly retail prices of the foodgrains have been recorded in seers per rupee; these had to be converted to prices in rupees and decimals of a rupee per maund remembering that 40 seers make one maund. This conversion has been a laborious process, but it has been worth the trouble, for if we were to construct indices of prices given in seers per rupee, we would get a misleading picture of their variation.

#### SELECTION OF BASE

The construction of the indices of prices requires the selection of a certain base of reference. A good deal of caution is to be exercised in the selection of such a base. For, in practice in a casual survey of the course of prices one is apt to be unconscious of the base, and is likely to form erroneous conclusions about the variation of prices, if the base selected has been a year of exceptional prices. A 'normal' year or a year in which the prices had been bordering on the average would be the best base; an average of the prices in a number of years would also be a useful one, for here the abnormalities on either side of the average price will nearly cancel and this has the effect of making the period representative or 'normal'. In this survey an average of the

prices in the ten years from 1874-75 to 1883-84 has been taken as base. This period has three years of very high prices, but the effect of these is mitigated by a number of years of low prices. It has also the advantage that it forms one end of the series of prices dealt with in this enquiry, and thus enables one to take a view of the course of prices from beginning to end and form an idea of their variation in relation to the prices that have obtained at the beginning.

### THE COMPUTATION OF INDEX NUMBERS

From the data of the monthly prices of foodgrains for each district in the Presidency, which as was referred to in the beginning are recorded in the Statistical Atlas in terms of seers per rupee, the prices in rupees and decimals of a rupee per maund were calculated for all the foodgrains. From these data of monthly prices, the averages for the years were calculated. The average for the ten years 1874-75 to 1883-84 which form the base period was then calculated for each commodity and for each district. The index numbers of the prices of foodgrains which are merely the percentages of the average price in the base period were then calculated for each district. The districts were then grouped in their respective natural divisions, and unweighted averages of the index numbers were calculated for each division. An unweighted average may not perhaps be the best one to use in a case like this, where an index for the whole natural division which comprises as many as seven districts in one case is desired, but in the absence of data as to the consumption of foodgrains in each district, which form the basis for any system of weighting, it was thought sufficient to use an unweighted average throughout. Though this may not lead to very accurate values, it has the advantage of ease of calculation, which is a factor which certainly counts in long and tiresome computations so long as there is no serious sacrifice of accuracy in the computations. And lastly from the index numbers for the natural divisions were calculated the index numbers for the whole Presidency, again taking unweighted averages of the former. The index numbers for the divisions and for the Presidency as a whole computed in the manner described above are given below.

*Index numbers of prices of foodgrains on the WEST COAST.*

BASE: Average price for the 10 years 1874-75 upto 1883-84.

Year	Rice 2nd sort		Ragi	
	Price in Rs. per maund	Index No.	Price in Rs. per maund	Index No.
1874-75	3.34	94.1	1.93	78.8
1875-76	3.32	93.5	2.14	87.4
1876-77	4.28	120.5	3.25	132.7
1877-78	4.89	137.7	4.12	168.2
1878-79	4.32	121.7	3.00	122.5
1879-80	3.60	101.4	2.45	100.0
1880-81	3.05	85.9	2.00	81.7
1881-82	2.84	80.0	1.87	76.4
1882-83	2.93	82.5	1.89	77.2
1883-84	2.94	82.8	1.84	75.1
1884-85	3.18	89.6	2.00	81.7
1885-86	3.18	89.6	2.00	81.7
1886-87	2.89	81.4	1.79	73.1
1887-88	2.86	80.5	1.58	64.5
1888-89	3.09	87.0	1.71	69.8
1889-90	3.40	95.7	1.74	71.0
1890-91	3.53	99.4	1.89	77.2
1891-92	4.04	113.8	2.55	104.1
1892-93	3.91	110.1	2.33	95.1
1893-94	3.76	105.9	2.15	87.8
1894-95	3.58	100.8	1.72	70.2
1895-96	3.48	98.0	1.71	69.8
1896-97	3.84	108.1	1.98	80.8
1897-98	4.48	126.2	2.44	99.6
1898-99	3.84	108.1	2.20	89.8
1899-1900	4.05	114.1	2.63	107.4
1900-01	4.24	119.4	2.85	116.4
1901-02	3.83	107.9	2.29	93.5
1902-03	3.60	101.4	1.89	77.2
1903-04	3.61	101.7	1.78	72.7
1904-05	3.67	103.4	2.05	83.7
1905-06	4.24	119.4	2.79	113.9
1906-07	4.74	133.5	2.90	118.4
1907-08	4.99	140.5	2.65	108.2
1908-09	5.37	151.2	3.33	136.0
1909-10	4.84	136.3	2.95	120.5
1910-11	4.32	121.7	2.49	101.7
1911-12	4.94	139.1	2.84	116.0
1912-13	5.47	154.0	3.29	134.3

Year	Rice and sort.		Ragi	
	Price in Rs. per maund	Index No.	Price in Rs. per maund	Index No.
1913-14	5.34	150.4	3.06	124.9
1914-15	5.25	147.8	3.13	127.8
1915-16	5.26	148.1	2.89	118.0
1916-17	5.54	156.0	2.89	118.0
1917-18	5.85	164.7	3.29	134.3
1918-19	7.47	210.4	5.03	205.4
1919-20	8.67	244.2	5.56	227.0
1920-21	7.25	204.2	4.02	164.1
1921-22	7.46	210.1	5.13	209.5
1922-23	7.38	207.8	4.69	191.5
1923-24	7.30	205.6	5.03	205.4
1924-25	8.01	225.6	5.88	240.1
1925-26	7.76	218.5	5.39	220.1
1926-27	7.72	217.4	5.26	214.8
1927-28	7.27	204.7	5.18	211.5
1928-29	6.97	196.3	5.04	205.8
1929-30	6.36	179.1	4.57	186.6

(To be continued)

# SOME ASPECTS OF FRESH WATER FISHERIES IN INDIA

BY C. C. JOHN, M.A., D.Sc., D.I.C.

Cuvier in writing to a correspondent in India remarked that he did not know "of a more interesting and important question that could arise in India than an inquiry into the freshwater fisheries of the country." The importance of this problem can be comprehended only when one looks more closely into the geographical character of our vast country and the nature of its population. The greater part of India lies in the tropics and it possesses a very limited and unbroken coastline. These conditions render the distribution of marine fishes into the interior of the country an almost impossible task. Under tropical conditions dead matter putrefies very quickly and fish have not been known to keep fresh for more than twelve hours from the time of catch. As the fishing trade of India is not at all organised on any economic basis and as fish transport is still what it was in times of old, marine fishes could not be distributed at any distance more than twelve or fifteen miles from the coast. There are instances where marine fishes are iced and sent by rail to inland towns but such a transport makes fish a rather costly commodity and it is only a very limited section of the population who can afford to buy them. Further, there is in India a general belief that iced fish is always inferior in quality and people refuse to buy them if they can help it. Under these conditions it can be fairly affirmed that it is only the coastal inhabitants who are benefited by marine fishing. The great mass of the agricultural population lives in villages which are, in most cases, not within easy reach by rail. These people depend entirely on local supplies of freshwater fishes and it was a general conception of these facts which induced Cuvier to make his observations and later prompted McClelland to draw attention to the great benefits which might accrue to the country by looking after its freshwater fisheries. Still it is surprising to note what little work has been done in this

direction and what poor enthusiasm has been evinced by the Government in developing its resources.

\* The earliest work on freshwater fishes was that of Dr. Hamilton Buchanan. In 1822 he published his observations on the fishes of the Ganges and like many others he considered the problem of freshwater fisheries as one of the most important subjects connected with the economic prosperity of the country. The work of Dr. McClelland about which we have already mentioned appeared about seventeen years later. In 1849 Dr. Jordan published papers on the freshwater fisheries and fishes in South India in the *Madras Journal of Literature and Science*. During the twenty years which passed since the work of Dr. Jordan only two papers of importance by Mr. Blyth and Dr. Day appeared and in 1857 some inquiries were made by the Government of India regarding the effects of weirs and anicuts across large rivers. As the result of this it was observed that the construction of anicuts and weirs leads to a rapid destruction of many kinds of fish resulting in their ultimate extermination not only by preventing them from reaching their accustomed spawning grounds but also by the fact that the construction of these barriers leads to their aggregation below, where they are captured in large quantities by man and exposed to a greater extent to the attacks of predaceous aquatic animals. In 1870 Dr. Day undertook an inquiry into the conditions of fisheries of India and his report published in 1873 embodies a general investigation of the indigenous fishing methods and their effects on the fisheries concerned. The only recent work of considerable importance to Madras was that of Dr. Sundara Raj published in the *Records of the Indian Museum* in 1916. He has described 57 species of freshwater fishes from the city of Madras and its neighbourhood, with all readily available information on the breeding habits, development and food value of the different species.

Though all these papers have dealt with the different aspects of freshwater biology and are of considerable help to the study of the freshwater fisheries in the future, they cannot form the basis of any constructive scheme. Some of the papers are of a purely systematic type, others describe the indigenous fishing methods and only a few of them have

attempted to study the problem from an economic point of view. Still they bring to light an important point and that is that the freshwater fisheries in India have suffered owing to the ignorance and greed of the fishermen. However, it has to be pointed out that the Madras Government Fisheries under the able guidance of Dr. Sundara Raj, the present Director of Fisheries, have done some useful work in developing the inland fisheries (Ref. *Madras Government Fisheries Administration Report* for the years 1928 and 1929). Under these conditions before any scheme for developing the freshwater fisheries is undertaken, it is essential to prepare a general survey embodying more or less investigations of the following problems:—

1. What types of lakes, rivers and canals are found in different localities and which of them are suitable for developing into freshwater fisheries?

2. What are the factors that are injurious to freshwater fisheries and what methods can be devised to overcome these disadvantages?

3. What are the natural enemies of fishes?

4. What are the precise habits of different species of food fishes—

- (i) as to their migration or otherwise for purposes of spawning;

- (ii) the extent to which they go up the rivers and the seasons in which they occur in any particular locality.

5. What are the seasons in which different species of marine fishes migrate into freshwater? Do they appear in all localities in the same season?

6. Among the freshwater fishes which species survive in pure freshwater alone and which others are able to survive in brackish or muddy waters?

7. What are the seasons in which the young brood of fish is developed and when do they descend the rivers?

8. What time is taken for the fry to develop into the adult and what is the natural food on which they thrive best?

9. Among the freshwater fishes what species are accustomed to live in still waters and as such are suitable for stocking in tanks?

10. Among the numerous freshwater fishes which species are good for eating and form an important portion of the food of the people?

11. What proportion of the population of the different districts are fish-eaters and what is the present state of the local markets?

Before any scheme for the development of freshwater fisheries is contemplated it is essential that problems of this type are thoroughly investigated. The significance of such a procedure can be best understood only when we explain the bearing of these problems on the development of fisheries and so in the following pages we shall consider some of the outstanding aspects of this important subject.

#### FRESHWATER HABITATS

The habits of fish in any particular locality depend to a greater or less extent on the nature of the waters in which they live. In India freshwater is found in (1) rivers and canals and (2) lakes and ponds. The rivers in India which take their origin in hills and mountains may be divided into (1) those which arise from snow-clad mountains i.e., rivers which have an alpine origin and (2) rivers which originate from hills which are never covered with snow—non-alpine. Generally speaking all the Himalayan rivers have alpine origins, being replenished in the monsoon season with rain water and during the summer with water derived from the melting snow. Rivers of non-alpine source are found in the peninsular part e.g., the Nerbada, Kistna, Godavery, Mahanadi, Cauvery and the minor rivers and hill-torrents on the western side of the Ghats. Thus the rivers in India can be divided into those, which have a fair supply of water all the year round and others, which are dry during the summer months. In the north during cold months, December, January and February fishes generally lead an inactive and dormant life. The rivers at this time are rather low and the fishes seem to resort to deeper pools where they lie quiescent at the bottom neither seeming to care to move about or to feed. In places where rivers or streams issue from the hilly country into the plains large pools of water are to be found long distances into the hills overshadowed by cliffs. In such places during the

cold months large Cyprenoid fishes may be seen in thousands lying near the bottom. During this time food is scarce, water-weeds and vegetation die out and become inedible and there are no insects or small fry for these large fish to feed upon. It is therefore necessary that they should lie quiet and lead a semi-torpid life. On the approach of spring the fishes wake up again. Their seasons are, however, much dependent upon the rains which commence at different times in the different parts of the country. Thus in Assam the first rains fall in March, while in the Punjab not until July.

The South Indian rivers which flow towards the east are long, broad and shallow while those which originate on the Western Ghats and flow west are short deep narrow torrents. During the summer months these rivers are comparatively dry. They appear like a succession of pools united by more or less insignificant streams. Into these pools resort the larger fish which do not descend into the plains. During the rainy season they keep to the bottom or remain hidden under rocks and boulders from where they cannot be easily caught. During the dry season when the water diminishes they are easily netted.

In India lakes are very few and small, but there are large numbers of irrigation tanks all over the country. These can be classified under four headings as follows:—

1. Tanks which are always connected with running water.
2. Tanks which are not connected with running water, except during Monsoon months, but which contain water all the year round.
3. Tanks which are not connected with running water except during Monsoon months and which become dry during certain seasons.
4. Isolated tanks.

The first type of tanks wherever they exist are very useful for rearing and breeding non-migratory fishes and require only just a little care to investigate how they are to be worked in order to render them valuable as fisheries. Fishes obtain access into both the second and third type of tanks, but when the tanks are cut off at the end of the rainy season the third type of tanks dry up or become muddy and unless the fishes living in them are such as bury themselves in the mud they

are caught by man or die due to exposure or heat. Isolated tanks are usually found at elevated levels and as they never have any communication with rivers they are to be stocked by owners.

These bodies of water of India form the natural environment of numerous forms of freshwater fishes. The number of genera and species which are distributed throughout India is so great that it will not be possible to give here a detailed account of them and so we shall confine ourselves to a very general summary only. For the purpose of fisheries investigation the best method to be followed is to divide the freshwater fishes according to their respective habits such as migratory and non-migratory forms. Some of the migratory forms ascend the hill-streams from the rivers of the plains, others which may be marine reach the plains from the sea. Migrations in adult fish are effected for breeding, for predaceous purposes, or for obtaining some peculiar sort of food. Non-migratory fish are found both in the waters of the hills and those of the plains.

The family *Acanthopterygi*, which include the hard-rayed fishes are not found in any large numbers in the inland freshwater of India, but are confined mostly to the plains either within or a short distance from tidal reach. The larger the rivers the greater the possibility of their extent. Some e.g., the *Ophiocephalidae* are able to dive down and remain buried in the mud during the dry seasons, and others are able to live a considerable time out of water. The group is represented by 19 genera which include a considerable number of species. They include both migratory and non-migratory forms. The non-migratory forms such as *Anabas* and *Ophiocephalus* are best suited for stocking tanks which become partly dry during the hot months. Further as they are able to live for a considerable time out of water they are best suited for transport in the live condition. One of the most classical instances is the achievement of Dr. B. K. Das who took with him a number of live specimens of *Anabas scandens* to England and it is stated that they lived in the laboratory of the Imperial College for a considerable time. The migratory type is represented by the Mugils (Mulletts) which are mostly marine. They ascend tidal rivers and estuaries. The

young ascend large rivers and are found in water courses intersecting paddy fields, from where they are easily captured with small meshed nets. Of the whole of the Acanthopterygeans but a few are distributed through the inland tanks far from sea-level or the beds of large rivers. The genus *Etroplus* thrives very well in brackish water.

Fishes of the order *Physostomi* or those in which the air vessels communicate with the pharynx by means of a pneumatic duct, contain the largest number of Indian freshwater fishes. One of the families *Siluridae* are devoid of scales while scales are present in *Cyrinidae* and also in *Clupeidae*. *Notopteridae* which also belong to this order are very much esteemed as food. The *Siluridae* are commonly known as catfishes because they possess a number of barbels. Some of them are well adapted for inland and muddy freshwater existence. The Siluroid fishes, which are mostly captured in the freshwaters of India belong to 25 genera which may be divided into those of the hills and those of the plains. The hill forms are small while those of the plains are very numerous existing in every piece of freshwater. The Siluroid fishes are popular as an article of food in all parts of India and all excepting a few e.g., *Wallago attu*, *Callichrous* and *Allia* are more eaten by the poorer classes. Firstly they are forbidden by the Jews and Muhammadans and secondly, most of them are very foul feeders.

The *Cyprinidae* are represented by 27 genera, one of which *Barbus* contains seventy species. Whereas Siluroids as a rule prefer muddy water, the carps thrive best in clear water. As they are seldom such foul feeders as the Siluroids, they are deemed most wholesome and are greatly preferred as food in spite of the numerous bones which are present in their body. The carps are divided into those of the hills and those of the plains. The hill carps are further divided into those which permanently reside there and those which migrate to the hill-streams for purposes of breeding. The carps of the plains are very numerous, some of which are migratory, migration being effected for spawning purposes and generally taking place during the monsoon months.

The Herring family *Clupidae* furnishes examples of both migratory and non-migratory forms. Some are marine and

ascend rivers solely for breeding, while others are strictly freshwater and non-migratory. These fish are very much esteemed as food wherever they are available.

There are a few more groups as the *Symbranchidae* and *Lophobranchi*, which are represented in the freshwaters, but as they are not considered good eating, we shall not describe them here.

In the preceding account we have seen how migration is one of the essential factors in the life-history of many freshwater fishes and some marine ones. We have also seen how the freshwater fishes can be divided into migratory and non-migratory forms. It has been found by Dr. Day that the migratory forms produce a larger number of eggs as a compensation for the greater chances of destruction. It has been calculated that a migratory herring contains about 1,030,000 eggs and migratory barbel about 410,500 eggs. A non-migratory carp has about 47,000 eggs while a non-migratory *Ophiocephalus* has only about 47,000 eggs. These eggs are laid in suitable places according to the habits of the various species and unless these breeding habits are definitely known it is difficult to devise any measures whereby young fry can be protected. Their means for subsistence and opportunities for growth are questions which are very important for the developing of freshwater fisheries.

#### METHODS OF CAPTURE

The different methods employed in capturing freshwater fishes are netting, dragging, angling, trapping, spearing, torchlight fishing and poisoning streams. Apart from these there are certain methods, which are followed in some localities. For instance in the Sylhet district *Gobio limnophilus*, which is very abundant and which forms a staple food is caught in an unique way. "After the rains when inundations begin to subside the fishermen build a screen of bamboo work at the mouth of a drainage, where it enters a stream. The fish trying to get back to the river are stopped by this barrier and accumulate in thousands till the water boils with them. A second barrier is now built some distance above the first and between the two screens the fish are kept alive and bailed out as they are wanted."

In the N.-W. Frontier Provinces a very ingenious method is followed for capturing *Discognathus modestus*. These fish live in rapid streams usually under stones and boulders along the banks. "The water is clear and shallow and these fish can be seen swimming about but they could not be netted as they take refuge under and between stones at the slightest disturbance. The fishermen, therefore collect the boulders into heaps in the middle of the stream and after a few days cast their net over each heap, and opening the top remove the stones one by one. When all the stones are removed the fish alone remain in the net." In this way they are able to obtain quite a large quantity of fish.

In hilly places where the streams form long, narrow and very deep pools, the sides of which are formed of jagged rocks sometimes fish abound. In such places netting is impossible and the fishermen poison these pools. In other places where these pools are in communication with streams the water of which is used for drinking purposes, poisoning is impossible and so explode dynamite under water. By both these methods all living forms in the locality are destroyed and large quantities of fish obtained.

#### CAUSES WHICH ARE INJURIOUS TO THE DEVELOPMENT OF FRESH-WATER FISHERIES

Under this heading we shall consider the artificial causes affecting fisheries and the effects of destructive methods of fishing, which are pursued in almost all parts of the country. Among the artificial causes affecting fisheries are anicuts, weirs or bunds constructed for purposes of irrigation across rivers and streams. Irrigation weirs have been erected across various rivers in the Punjab, N.-W.F. Provinces, Bengal, and the Madras Presidency in order to deflect a certain amount of water into canals for distribution. These weirs form an obstruction arresting the upward and downward passage of migrating fish. Fishes migrate upwards to reach their natural spawning grounds and are therefore in a breeding condition. On their way, if they are prevented by artificial barriers from reaching the only localities, where their spawn could come to maturity, if deposited, they are forced to cast it into the water

below those weirs where it cannot be fertilized but inevitably perishes.

Besides this there are irrigation canals, which have a bearing upon the fisheries of a district and these canals may be either those which are constructed for purposes of irrigation only or those which are made both for irrigation and navigation. Irrigation canals are given off from one or both the sides of a river which has been weired; off the head of each of these canals there are head sluices where the amount of water entering can be regulated in accordance with local requirements or entirely cut off if necessary. Every time the head sluices are opened shoals of fish are carried over the falls, up which they cannot reascend and below which they are unable to breed and thus they are permanently destroyed. These disastrous effects can be prevented by providing gratings or other appliances at the commencement to prevent the ingress of fish, but considering the neglect which has been accorded to freshwater fisheries, it is doubtful in how many cases such precautionary measures have been adopted.

One of the greatest drawbacks of freshwater fisheries is the wasteful destruction of either the breeding fish or their fry. During the monsoon season when the fields and channels are flooded many species of fish pass upstream for breeding. During this time they appear to lose much of their natural timidity and are only anxious to reach suitable places of spawning. At this particular period in all provinces which get a fair share of rainfall fish are caught in plenty. In some districts e.g., Malabar, and Madras, every conceivable method is employed to catch them, but trapping is not encouraged. When such is the fate of the breeding fishes it is unnecessary to enquire whether the fry fare any better. The fry of migratory fish spend the early part of their development in the hill streams and pools from where they descend only with the commencement of the succeeding year's rain. The flood disperses them over the surface of the country in rice fields and swamps, from where they endeavour subsequently to make their way to the rivers, but the dangers which beset their path are more numerous than those which confronted the progress of Bunyan's pilgrim. In Malabar the appearance of young fish in flooded fields is called in

Malayalam 'ootha elakam' the news of which spreads like wild-fire and men, women and children equipped with traps, nets or at least a big piece of cloth set to work and their baskets are soon filled. Those that manage to escape following the flow of water arrive at the partition bunds of paddy fields and here they find their further progress barred by bamboo-work traps called 'kūdu' through which water can pass but whose outlets are so small that only the minutest fry can pass through. If any manage to escape to the smaller water-courses their dangers only seem to increase. In some places the existence of bunds or weirs prevent their further progress.

Some of the fishing methods as trapping, torch-light fishing, poisoning, and exploding are injurious to the fisheries in general, but as the ruinous effects of such methods are easily comprehended we shall not dilate upon them here.

The taking of small fry in basket-work traps should always be jealously guarded. It is a wasteful and improvident system and it can never be permitted unless provision is made for a fair number to pass down-stream. However, it would be better if the practice of catching the fry could altogether be stopped, as such a measure will greatly improve the quantity and quality of the food fishes. Therefore in deciding on protective measures in any particular district, the most important thing to be determined is whether the number of fish destroyed in this manner forms an appreciable portion of the supply of the district. If it does, measures are decidedly necessary for their protection. It may perhaps be argued that the reproductive powers of nature are so great that the destruction of the young fish does not perceptibly affect the supply. This is certainly true of marine fishes. In the sea whatever be the method of catch there is always sufficient scope for a large number to escape and there the fry are never wilfully destroyed. In freshwater the conditions are entirely different. They are limited in volume and the methods used can destroy all the individuals of any particular brood. Further it is a known fact that the fry are the natural food of many of the larger fishes and if the former are destroyed it will result in a natural decrease of the quantity of the larger forms. For fish of any kind to develop into

their natural size there must be plentiful supply of food and if through scarcity they are forced to feed upon filthy refuse or adopt a change of food they are never so good or wholesome for eating. From these considerations it would seem that the supply of fish in any locality will depend on (1) the amount of water available during summer; (2) the supply of food available for the fish; (3) the presence or absence of artificial interference; and (4) the methods of fishing.

### THE ECONOMIC ASPECTS OF FISHERIES

Assuming from the preceding account that the amount of fish in the freshwaters is speedily diminishing, it is necessary to examine the economic aspect of freshwater fisheries. There are some who may advance the erroneous view that fishing has been going on from time immemorial and as fish still continue to exist in reasonable quantities laws are not necessary to regulate the mode of capturing them. It can be shown that fishing methods in ancient and mediæval India were not entirely what they are at present in British India. The British rule with the most philanthropic motives have allowed fishing rights to the people, which have been greatly misused with the most disastrous consequence to freshwater fisheries. Under the older governments fisheries formed royalties mostly let out to contractors who alone in the districts possessed the right to sell fish, and these contractors permitted people on payment to capture fish for their own consumption. Under the British rule the Secretary of State in 1849 ruled that the right of fishing was not to be rented out and since then commenced the wasteful destruction, which we have already noticed. This law was slightly amended later and in 1927 the Madras Government introduced a new amendment under which certain protective measures were adopted and fisheries leasing system introduced in some places.

Even if no wasteful destruction takes place it can be clearly demonstrated that increase in the supply of animal food can only be assured by moderate and well considered protective and restrictive measures and therefore the strongest advocates of the prescriptive rights of the people to ruin the

fisheries and diminish their neighbours' food and the philanthropists who denounce fishing laws as engines of oppression are both wrong in their assertions. A great biologist once remarked that the statesman for the most part confines his attention to a period of thirty or forty years and if during that period no marked changes take place with regard to that particular subject he concludes that nothing serious has altered it; the philanthropists' outlook is still more restricted, he endeavours to ameliorate the condition of the individuals of his own time without much thought as to the results of his measures on the future, but the biologist looks far into the future and sees tendencies working themselves out to the end and bearing bitter fruit.

The intensity of fishing depends on the numerical strength and nature of the population. The country or district which is most populated will be the most denuded of fish. Under normal circumstances fishes multiply rapidly producing enormous number of eggs. The young are distributed by periodic floods into swamps, which may cover large areas of the country, where shelter is afforded by grass, rushes etc., rendering vain man's attempts to depopulate. But as the population increases watery wastes become drained and cultivated and forest-covered lands are converted into estates and man slowly encroaches on nature's strongholds. This process has increased the methods of destruction and decreased the quantity available, resulting in the rise in price of fish. This gives an impetus to the exertions on the part of fishermen to capture fish to meet the enhanced demand. New methods of capture are devised, fixed traps are set up, the size of the mesh is decreased, and everything taken no matter how small, as the fishermen appear never to consider from whence the next year's supply is to come, but only the easiest method to take at present all that is available.

The gravity of this wasteful destruction can be understood easily by a simple mathematical calculation. Let us suppose that in Malabar about 1,340 tons of fry are annually destroyed and suppose we calculate the weight of each fry at 1 grain. We find that the number of fry destroyed is about 17,300-million. Suppose half the number are destroyed by a natural process and each of the remaining fry develop into an adult

weighing 1 lb., at the end of one year we get about  $3\frac{1}{2}$  million tons of wholesome fish, which by itself would be sufficient to feed a population of 4 million fish-eaters of mixed diet for more than three years. As the amount of fry annually destroyed has not been estimated the present calculation is based partly on conjecture.

Among the various races inhabiting India fish as an article of food is held in different degrees of estimation and in proportion to such must be its economic importance. In the Punjab comparatively but few of the inhabitants are prohibited by religion from eating fish. There are many Hindus who reject it, but of those residing in towns and in hilly ranges if the Brahmins are excepted the consumption of fish is only limited by the paucity of supply and its cost. In Sind fish is generally eaten by the Muhammadans and the Hindus except the Brahmins. In the Bombay Presidency the majority of the inhabitants of the inland districts are consumers of fish when they can procure it. In Hyderabad fish is esteemed by a large section of the population. In Mysore and Coorg more than half the inhabitants are fish-eaters. In the Madras Presidency great numbers are fish-eaters, the largest exceptions being the Brahmins and the Saivites. In many parts of the presidency owing to the scarcity of fish badly made dried fish is largely used. In Bengal about 90-95 per cent and in Assam the entire population are fish-eaters. Without entering more fully into the subject it may be fairly advanced that fish as an article of food is used by a very great part of the population and it is certainly a more wholesome general food than the flesh of village sheep, fowls, etc.

To show that the interior markets in India are insufficiently supplied with fish will take more time and space than we can assign in the present instance and so we confine ourselves to a few general remarks. As we have already said the sale of fish in the Indian markets is confronted with more than one practical difficulty. Being a tropical country without any efficient or scientific methods of transport marine fish could not find their way into the interior except in the dried state. In European countries where the temperature is low refrigerators are largely used and marine fish can be taken wherever

needed. One instance alone will illustrate this fact. During the herring season large quantities of this fish are caught at Plymouth from where they are sent to brokers in Billingsgate (London), a distance of 240 miles. There the fish are distributed in lots and sent to various places including the markets of Plymouth. Cold-storage-motor-vans can perhaps be introduced for fish transport in India, but it is doubtful whether they will work profitably. So naturally the greater part of the interior of India has mainly to depend upon freshwater fisheries for their supply, but unfortunately this is diminishing yearly owing to the present destructive methods and the people who would readily take fish are driven by necessity to depend on grains deficient in proteins. It has been said that the physical and moral courage necessary for the achievement of feats of valour can never be expected from ill-fed people. If this is admitted how great must be the responsibility of legislators who, living amongst a population such as exist throughout India more than half of whom would consume fish if they could procure it, have permitted the depopulation of freshwater fisheries and allowed the destruction of so great a source for the supply of animal food?



## UNIVERSITY NOTES

H. M. the King-Emperor has been pleased to confer the honour of knighthood on the Vice-Chancellor, Sir K. Ramunni Menon.

The University has to record with regret the demise of the Rev. Dr. W. Meston, the Rev. C. H. Firbank, Dr. Mark Collins and Mr. J. W. Bilderbeck, who were at one time members of the Senate and other University authorities.

*Courses of Study.* Regulations for the Diploma Courses in Indian Music and Geography and for the Certificate course in Librarianship were adopted by the Academic Council and the Senate. The Regulations for the L. T. Degree and the B. E. Degree, which required revision, were completely recast and approved by the proper authorities. Except for certain slight modifications, the courses of study for other examinations have continued to be the same. The question of framing Regulations for higher degrees—M.A., M.Litt., M.Sc., Ph.D., D.Litt., and D. Sc.,—is still under the consideration of the Syndicate. It is hoped that suitable Regulations will be adopted by the Academic Council and the Senate in the course of the year. A proposal to form a separate Faculty of Veterinary Science and to institute a degree course in Veterinary Science is now under consideration by the authorities.

*Lectures:*—Three courses of endowment lectures were delivered during this period:—

### *Subject*

Sir William Meyer Lectures by Mr. N. S. Subba Rao, Director of Public Instruction, Mysore.	... World Economic Plan- ning.
The Rt. Hon. V. S. Srinivasa Sastri Lectures by Diwan Bahadur A. Ramaswami Muda- liar.	... The Indian Federation.
The Principal Miller Lectures by the Rev. Dr. A. G. Hogg, Principal, Madras Christian College.	... The Challenge of the time process.

Several lectures were also delivered under the auspices of the University Extension Lectures Board during the last term. Some of them were delivered by responsible officers of Government like

the Director of Agriculture, the Registrar of Co-operative Societies, the Secretary to the Department of Local Self-Government, and by well-known publicists like Sir K. V. Reddi and Mr. A. Rangaswami Aiyangar.

*Publications.* The following publications were issued during the period:—

1. 'New Light on Fundamental Problems' by Dr. T. V. Seshagiri Rao Naidu, M.A.
2. 'The Chronology of Early Tamils' by Mr. K. N. Sivaraja Pillai.
3. 'Paranar' by Mr. V. Venkatarajulu Reddiyar.

*Appointments.* The Syndicate, on the recommendation of selection Committees, appointed Mr. R. Gopala Ayyar, M.A., M.Sc., L.T., and Mr. M. Damodaran, M.A., M.Sc., D.Sc., D.I.C., F.I.C., as Directors of the University Zoological and Bio-Chemistry Research Laboratories respectively. The Departments have already begun to function, and the laboratories are getting ready for occupation.

## REVIEWS

**'HINDU LAW IN A NUTSHELL.** By J. Chinna Durai, Barrister-at-Law. London, Sweet & Maxwell, Ltd. 1933.

MR. J. CHINNA DURAI'S *Hindu Law in a Nutshell* is a useful little handbook designed, as the author himself says, 'with the object of providing the student with the outline of the principles of Hindu Law for examination purposes. . . .' It is not a text-book on the subject, and the student just beginning the study of Hindu Law ought still to go to the treatises of Mayne or Mulla. But when he has got himself initiated into the subject, and wants to recapitulate what he has read in the space of a few hours, he will find Mr. Chinna Durai's book a great help. The book is well arranged, a chapter is devoted to every important topic of the subject, and is so printed that the 'points', for which students crave before entering the examination-hall, strike the eye at a glance. The book is not overburdened with the citation of decided cases, though the important ones are all quoted and their reference given. The chapter on 'the order of succession', a branch of the subject of Hindu Law which has proved to be so attractive to examiners, is treated very lucidly and instructively. The great advantage of this book is that it can be put to use by the harassed student as an aid to rapid revision and the book, therefore, ought to find immense favour among the large body of students taking their examinations in Law. Mr. Chinna Durai's book is a useful addition to the popular Nutshell Cram Books of Mr. Marston Garsia.

N. S. SUNDARAM, M.A.,  
Bar-at-Law.

**SIX LECTURES ON ATOMIC PHYSICS.** By Dr. M. N. Shah, D.Sc., Patna University.

I am indebted to the editor for having given me the opportunity of paying my tribute to the great physicist by way of reviewing the small pamphlet on Atomic Physics which originally forms the series of Readership lectures delivered under the auspices of the Patna University.

The aim of Physics is to investigate the ultimate constitution of matter. This topic has been the all absorbing thing from time immemorial. After the famous researches of J. J. Thomson and Rutherford, extending over more than a decade, with the Bohr's idea and Sommerfeld's extension, the theory has taken a definite

step forward and according to many it is believed that the atom as it actually is will soon be revealed. We are indebted to the famous physicist for the very able and lucid presentation of the subject matter in all its theoretical and practical aspects. It is a great regret to us as it is to the author himself that a more detailed treatment of wave mechanics has not been possible. The student of physics is denied thereby an enlightenment which is eagerly anticipated from master-minds of this type.

The mathematical treatment of the subject is rigid and complete without the general complaints attributed to the pure theoretical physicist. Much of the present day turmoil and confusion in the world of physics is due to the pure mathematician, with his formidable array of new methods, new theories, special hypotheses, who takes hold of ascertained facts of experiment, throws his ideas in the form of equations and presents a mathematical picture of the universe. Instead of giving us a picture of the realities of nature we get a symbol, a mathematical affair; and it is to this aspect of it that Oliver Lodge puts that these symbols do not accord with sense and experience. A sense of failure to get the picture of the real nature of things is due to this confusion. Dr. Sommerfeld cannot help expressing a regret that in some of the problems solved by the new mathematics the why and how of nature escape us totally while only the what and how much can be determined mathematically.

There is a refreshing attempt throughout these lectures to give the real picture of the atom while there is a liberal use of mathematics to clarify and make the picture definite.

In the first lecture we are introduced to the concept of chemical elements and the atom. Under heavy external disturbance the atom is split and charged particles are emitted. How these were studied by J. J. Thomson and how Millikan measured their charge are explained. The automatic atomic disintegration in Radioactivity confirms that the atoms are composite and not simple. The study of substances with X-rays and radioactive emanations shows that the components of the atom are of very small dimensions compared to atomic dimension itself. That the nucleus itself is composed of H atoms is proved by experiments with  $\alpha$ -rays. The experiments of J. J. Thomson on 'Positive Ray Analysis' and Aston's Mass Spectrograph are then described. The lecture ends with the recent experiments of G. P. Thomson demonstrating the wave-nature of the electron itself. The first lecture thus enables us to understand how the whole of matter is wavy in constitution.

The little knowledge that we may have about the atomic structure should be got from the radiation it emits. So, the second lecture is about radiation—its exact nature and study of it under 'Spectrum Analysis'. The subject matter is given a historical treatment. The dual nature of radiation is very well explained. The finite velocity of light, the phenomena of interference and diffraction, the lower velocity in a denser medium—all evidences of the wave theory of radiation—are explained. With a brief sketch of spectroscopes and spectrum analysis he passes on to the electromagnetic nature of light waves—how it was guessed by Maxwell and later on demonstrated by Hertz. He then explains how, Planck's Quantum Hypothesis for the explanation of Black-body radiation, Einstein's explanation of photoelectric effect with Millikan's confirmatory experiments thereon, and the observations on the pressure of light, necessitate the revival of the corpuscular theory. Lastly, the experiments of A. H. Compton proving the forward momenta of the individual quanta of radiation, are described.

Kirchoff had shown that each atom has got its own characteristic spectrum. The spectroscopic data, and the conclusions drawn from these regarding the atomic structure, are dealt with in the next three lectures. The subject becomes a bit technical in spite of the attempt on the part of the author to make it otherwise. The works of Balmer, Rydberg and Ritz in the systematisation of spectra, are described. Bohr's theory of the hydrogen spectrum is treated in detail. The theory agrees well with experiment and a general explanation of the spectra is derived therefrom. The extension of the theory for the explanation of the spectrum of ionised Helium is then explained. But, the fine structure of the lines require the theory to be improved. Doctor Sommerfeld worked out the theory of elliptic orbits and taking into consideration the relativity change in mass with velocity, obtained results in agreement with experiment. The Stark Effect was explained on the same lines. In all these cases the data gathered are about the visible, the infra red and ultra violet radiations only. To complete the radiation data Mosley's work on X-ray spectra is also described.

In the fourth lecture he deviates from the historical method of treatment and more complicated spectra are dealt with. The magnetic nature of the atoms is proved by the Zeeman Effect and the anomalous effect requires for its explanation different but definite orientations of the atom-magnet. This is directly established by the experiments of Stern and Gerlach on silver atoms. If the different orientations of the electron orbits are to be stable the

electron should behave like a gyrostator, that is it should be revolving about an axis in itself. He next takes up Bohr's method of 'Atom Building'. The chemical nature of the atoms and the periodicity therein are explained in terms of their electron constitution.

The same trend is continued in the fifth lecture. But, the subject becomes very technical and can interest only those who are already acquainted with or those who are actual workers in the field. Typical elements are taken and treated exhaustively. Their atom models are described, the possible spectrum is worked out and then compared with the actual spectrum. With these models it has been possible to explain the magnetic behaviour of the elements but he leaves it out as being too technical.

The last and the sixth lecture is a beautiful summary of the previous five lectures, though he could well have avoided small references by way of sneer of ancients and their beliefs. Physics stands to gain nothing by its attack on moral beliefs based on faith and religion, and on the contrary that religion and moral law will guide humanity to greater solace in spite of the wonderful achievements of Physics is as true a proposition as anything.

Here the author shows himself not only as a great physicist as he is but also as a great man with his wide outlook on life, civilization and philosophy. A sort of answer is also given to the oft-repeated question—where is Physics going? From this lecture even an ordinary layman, innocent of Physics, gets a clear picture of the atom and the results of intricate experiments and theories.

I will conclude this short tribute to the author as he himself concluded with the words, which are as true today as they were when they were uttered by the great old master Sir Isaac Newton,— 'But to myself it seems that I have been but as a child playing on the sea shore, now finding some prettier pebble or more beautiful shell than my companions, while the unbounded ocean of truth lies unexplored before me.'

P. E. SUBRAHMANYAM.

PATNA UNIVERSITY READERSHIP LECTURES, 1924-25 & 1926-27.

The Readership Lectures for 1924-25 were on the Buddhist philosophy of the Theravāda school, as embodied in the Pāli Abhidhamma by Prof. N. K. Bhagwat of Bombay. The lectures are learned and show much industry and painstaking on the part of the author. Two lectures are devoted to a description of the Abhidhamma. All will agree with the author when he states that

'The Theravāda philosophy which Gotama had promulgated, had a background in the religion of the Vedas, the Brāhmaṇas, the earlier Upaniṣads and the two systems of the Yoga and the Sāṃkhya.' In his fifth lecture there is a comparative study of the Nibbāna of the Theravāda with the Brahman of the Vedānta, so as to demonstrate by a number of parallels the closest resemblance between the Absolute Being of the Vedānta and the Buddhist Nirvāṇa. It is interesting also to read that an Arhat could neither be a householder nor sit on the throne. And yet Asoka is claimed by scholars to be a monk-emperor! Books of this kind will go a long way to explain the real nature of the early history of Buddhism.

EARLY INSCRIPTIONS OF BIHAR AND ORISSA was the subject of lectures for 1926-27 delivered by Prof. A. P. Banerji Sāstri. In a course of six interesting lectures Prof. Banerji Sāstri has tried to study, not the diversities of Indian History, but their underlying unity. The two lectures on the Linguistic synthesis are thoughtful, and the lecture on Cultural synthesis affords delightful reading. The monograph contains certain interesting plates and illustrations.

V. R. R. DIKSHITAR.

HISTORY OF THE RĀṢṬRAKŪTAS by Paṇḍit Bisheshwar Nath Reu, Superintendent, Archæological Dept., Jodhpur (1933), price Rs. 2.

The early history of the Dekkan is the history of a number of shortlived dynasties. One such dynasty is that of the Rāṣṭrakūtas who held sway for nearly two centuries and a quarter succeeding as they did the Chālukyas. The earliest notice of this dynasty was made by the late Sir R. G. Bhandarkar more than forty years ago. According to that scholar the Rāṣṭrakūtas were the Maharāṣṭras and hence a dynasty indigenous to the Dekkan. There has been much difference of opinion as to their origin. The same difficulty has been experienced with regard to the identification of Gāhaḍavālas of Kānauj and the Balharāṣ of the Arab writers. Paṇḍit Reu's researches have enabled him to conclude that Gāhaḍavāla was only a branch of the Rāṣṭrakūṭa dynasty and that Balharā is only a corrupt form of 'Vallabharāja', a title assumed first by king Dantidurga and then continued by all his successors. Again in the Paṇḍit's opinion the original home of the Rāṣṭrakūtas was the Punjab whence they migrated to the south and carved out a kingdom in the Dekkan.

The author proceeds to trace the political history of the Rāṣṭrakūtas of the Dekkan, and of Gujraṭ (Lāṭa) and concludes from

the similarity in the names of the kings that the Gujrat line was only a branch of the Dekkan Rāṣṭrakūṭa dynasty. Incidentally we are given a brief account of two more branches of this dynasty that flourished one after the other at Saundatti in the modern Dharwar district of the Bombay presidency. The most interesting portion of the book is an attempt to reconstruct the early history of Rāṣṭrakūṭa kingdoms of Rājputana, both in Marwar (Hastikuṇḍi) and Shāhpura (Dhanop), and also of the Gāhaḍavālas of Kānauj up to the migration of Rao Sihā to Marwar. Paṇḍit Reu deserves our congratulations for this interesting and useful monograph which will be a welcome addition to the growing Indian historical literature.

V. R. R. DIKSHITAR.

**MAGADHAN LITERATURE.** Mahamahopadhyaya Haraprasad Sastri (Calcutta, 1923).

**THE GLORIES OF MAGADHA,** by J. N. Samaddhar (Patna University, 1924).

These two courses of six lectures each were delivered in the Patna University in the years 1921 and 1922; they are both devoted to a scholarly and interesting exposition of the bright spots of Magadhan history which in ancient times was indeed the core of Indian history. The scholars who delivered the courses are now, alas! no more.

In the first set of lectures, the first lecture is a review of the Vedic evidence on the nature of the population of Magadha with particular reference to the Vrātyas; the second lays stress on the position held by Pāṭaliputra as the intellectual capital of India by commenting on a statement of Rājaśekhara in his *Kāvyamīmāṃsā* that seven great scholars rose to fame after having passed tests held at Pāṭaliputra. The remaining lectures are on the *Arthaśāstra* of Kauṭilya, on Vātsyāna's *Kāmasūtra*, on the same author's *Bhāṣya*, on the *Nyāya-sūtras* and on Bāṇabhaṭṭa and Āryabhaṭṭa. If they consent to overlook the fact that there is little particularly Magadhan about this galaxy of India's greatest writers reviewed in this course, readers cannot be too grateful to the learned Sankritist who has discoursed so charmingly on these attractive themes of Sanskrit Literature.

Professor Samaddhar's lectures have a more distinctly Magadhan flavour. Not merely the lay reader but even the expert will find matter for profitable study in the lectures dealing with the

different capitals of Magadha and with the ancient University centres of Nālandā and Vikramaśilā. And the author's discussions of points of social and administrative history raised by the edicts of Aśoka is also very stimulating in character.

We have no hesitation in commending both these books to all earnest students as able contributions to India historical studies.

K. A. NILAKANTA SASTRI.

**INDIAN BANKING.**—With Special Reference to Behar and Orissa, by J. A. Hubback, M.A., I.C.S. (Banaili Readership Lectures, 1930-31, Patna University.)

This book contains six lectures on the banking problems of India, dealing in particular with the problems of Behar and Orissa. Mr. Hubback was president of the Banking Enquiry Committee of that Province and his analysis of the credit needs and credit supply of that province is penetrating and interesting. There are also some useful remarks about central banks, and about the general banking position in India. The book is a useful addition to the scanty literature on Indian banking.

P. J. T.

**EDUCATIONAL SURVEY**—(League of Nations), 1933.

In order to ensure the continuity of the League of Nations' efforts in favour of educational methods calculated to make the rising generations familiar with the principles of its covenant and activities and the new methods of international co-operation, the eleventh assembly of the League decided that member States should be requested to inform the League Secretariat at regular intervals of such measures as they may take in order to give effect to the recommendations of the sub-committee of experts. Accordingly, the Secretariat conducted an enquiry of such efforts in the different States and the answers are contained in the book under review. These answers make one feel that a powerful propaganda is needed if an international mind is to grow among the peoples of the universe. It is strange to find that India has not sent any replies. Can it be that the most populous country in the world was not consulted in the matter?

P. J. T.

## ACKNOWLEDGMENTS.

### BOOKS

- Elementary Organic Chemistry* by B. C. L. Kemp (Dent's Modern Science Series)—London: J. M. Dent & Sons, Ltd.
- A Junior Chemistry* by E. J. Holmyard (Dent's Modern Science Series) London: J. M. Dent & Sons, Ltd.
- \* *Hindu Law in a nutshell* by J. Chinna Durai, Barrister-at-law, London: Sweet & Maxwell, Ltd.
- Kingship through the Ages*, by P. S. Ramakrishna Aiyer, Ernakulam.
- Banks and the Money Market* by M. Ramachandra Rao, Calcutta.
- The following books have been received from the Patna University, Patna.
- The Mughal Administration—Six Lectures—*by Jadunath Sarkar, M.A., P.R.S.
- Principles and Methods of Physical Anthropology* by Rai Bahadur Sarat Chandra Roy, M.A.
- Recent Investigations concerning the Constitution of Matter:* Being a course of six lectures delivered at Patna University in March, 1922. By E. P. Harrison, Ph.D., F.R.S.E., F.Inst. P.
- The Rural Economy of India* by Radhakamal Mukerjee, M.A., Ph.D.
- Educational Ideas and Institutions in Ancient India (Cir. 15th to 10th Century B.C.)* by Dr. S. C. Sarkar, M.A., D. Phil. (Oxon.).
- Some Aspects of Fiscal Reconstruction in India* by Gyan Chand, M.A.
- Language in Education* by Michael West, M.A., D.Ph. (Oxon.).
- High Temperature Flames and their Thermodynamics* by H. K. Sen, M.A., D.I.C., D.Sc. (Lond.).
- India and the International Labour Organisation* by P. P. Pillai.
- Hindu Law in its Sources* by Mahamahopadhaya Dr. Ganganath Jha, M.A., D.Litt.
- \* *Six Lectures on Atomic Physics* by Dr. M. N. Shah, D.Sc.
- \* *The Buddhist Philosophy of the Theravada School* (as embodied in the Pali Abhidhamma) by Prof. N. K. Bhagwat.
- \* *Early Inscriptions of Bihar and Orissa* by Prof. A. P. Banerji Sastri.

\* Reviewed in the Journal,

- \* *Magadhan Literature* by Mahamahopadhyaya Haraprasad Sastri.
- \* *The Glories of Magadha* by J. N. Samadhar.
- \* *Indian Banking with special reference to Behar and Orissa* by J. A. Hubback, M.A., I.C.S.

## PERIODICALS

1. *Journal of the University of Bombay*, Vol. I, Parts IV & V.
2. *Journal of the Annamalai University*, Vol. II, No. 1.
3. *Calcutta Review*.
4. *The Presidency College Magazine, Calcutta*, Vol. XX, No. 1.
5. *Half-Yearly Journal of the Mysore University*.
6. *Madras Agricultural Journal*.
7. *Monthly Summary of the League of Nations*.
8. *The Ram* (University College, Exeter).

\* Reviewed in the Journal.

Supplement to the Madras University Journal

# AN INDIAN FEDERATION

*Its Constitutional Problems and Possible Solution.*

(The Rt. Hon. V. S. SRINIVASA SASTRI LECTURES—1932-33)

BY

DEWAN BAHADUR

A. RAMASWAMI MUDALIAR, B.A., B.L., M.L.A.



UNIVERSITY OF MADRAS

1933

*The Rt. Hon. V. S. Srinivasa Sastri Lectures—1932.*

(Delivered at the Senate House by Diwan Bahadur  
A. Ramaswami Mudaliar, M.L.A.)

AN INDIAN FEDERATION :  
ITS CONSTITUTIONAL PROBLEMS AND  
POSSIBLE SOLUTION

I

‘Mr. Vice-Chancellor,—My grateful thanks are due to the Syndicate of the University of Madras and to the Board of Studies in History and Politics, for the rare honour that they have conferred upon me in asking me to deliver this course of lectures. Anyone must feel proud who is called upon to perform this task; but I feel doubly proud because of the fact that I do not belong to that charmed circle of academicians who have made a life-long study of such subjects as I am about to deal with; and it is therefore a matter of special gratification to me that I should have been called upon to deal with subjects in which they are so much better versed than myself.

I should also like to say, Mr. Vice-Chancellor, that I feel a certain sense of genuine pleasure in the fact that the lectures are associated with the name of a gentleman who has played so great and so large a part in the affairs of our country. The Rt. Hon. Dr. V. S. Srinivasa Sastri has been an adviser not merely of the Privy Council of H. M. the King-Emperor, giving sane advice on various questions relating to the affairs of the British Empire; but I feel it is due to him to state that he has been a councillor of equally rare value to those Indians who have had the opportunity of getting advice from him on most momentous questions concerning the welfare of our country.

THE TITLE OF LECTURES

I have chosen, Mr. Vice-Chancellor, the title of my lectures to be ‘An Indian Federation, its constitutional

problems and possible solution'; and I do not think I need offer any apology to the audience for the choice of my subject. When men's minds are naturally turned and focussed on a subject of that nature, when the foremost idea in the mind of everyone—be he an academician or be he a politician in the more active sense of the word, be he a student at the University or one who has taken his proper share and part in the public affairs of the country—is turned on the political development of one's country, I do venture to think that it will be the right thing for a University to try and understand the problems that face the political administrator and the statesman; and it is because I felt that a great value can be derived from the assistance of academicians of this University, and that the University can contribute its real quota of help in the solution and understanding of these problems, that I have ventured to select this subject for my address. Not that I hope to contribute anything of very great value myself; but I do think that it will provoke thought among those who are better qualified than myself to judge of these questions; that it will make students turn with greater attention to those text-books of theirs which at one time in the preparation for their examinations may have appeared to be altogether repellent, but which at another time, read from another point of view, perhaps tried to be understood in relation to the views that a lecturer may put forward, may be of very great value. And so I venture to put forward this plea, that University authorities, academicians, professors, tutors and lecturers, do have a great part to play in the future politics of the country.

#### ACADEMIC THEORY AND PRACTICE

I am not one of those who believe for a moment that there is a divorce between academic theory and practical politics; and anyone who has bestowed the slightest consideration on constitutions and their adaptability to practical conditions must have realised that the theorists of constitutions have played a great part in enabling politicians and statesmen to settle the constitutions of various countries. It is true that in the practical consideration of a very complicated problem, men of affairs often find that rules and principles cannot be rigidly

applied and compromises have to be occasionally made. If there is a tendency in academic circles to deprecate such compromises because they are a violation of cherished principles, it is perhaps no more just than the criticism one often hears that doctrinaire principles have no application in practical politics and that the practical administrator must beware of intellectual cleverness. There is a golden mean obviously between these two extremes. It would appear as unwise to disregard the analyses and generalisations of principles of scientific study of constitutions, as it would be to attempt to impose on any country, a constitution purely based on theoretical principles and ignoring the fundamental facts and factors of the life of that country. Believing therefore, as I do, that the professor at his desk has his legitimate and necessary share along with the practical man of affairs in the drawing up of the constitution of a country, I have ventured to choose this, my theme in the hope and in fact the expectation, that at the stage at which we have reached in our deliberations the help of the University will be fully and richly forthcoming in the further consideration of constitutional problems.

#### FEDERAL OR UNITARY

I shall, without further preamble, deal with the subject of an Indian Federation. It was for some time a doubtful point whether India should evolve as a Federation or whether some other form of Government was either more feasible or more desirable for the country. At first glance, it looks as if it is somewhat anomalous to think of British Indian provinces, with their long tradition of a centralised and unitary government, forming any sort of compact, for a purpose however limited, with autocratic rulers of Indian States in varying degrees of cultural advance and fundamentally differing from one another and from British India, in the methods of administration pursued in their States. There have been not a few Indian politicians and thinkers who have argued that the unity that has been obtained in British India over a long period, by centralised administration, was of the highest value and the direction of the progress of the country lay in transferring power and control in the central government of

British India and in the provinces, from foreign or British hands and irresponsible agents, to Indian and responsible administrators. While none can ignore the obvious advantages that have accrued from a centralised administration, a closer study of the facts of administration will, I venture to suggest, enable us to understand how the necessity for forming an all-India Federation came to be felt.

#### PROVINCIAL AUTONOMY

In the first place, provinces in British India have long been agitating for a measure of autonomy, for a right to control the destinies internally of their own areas, and for as little of control from the centre as possible. Even in the days before the introduction of the Montagu-Chelmsford Reforms, when Provincial Governments were merely the agents of the Central Government and no part of the administration was transferred to popular control, this cry of autonomy had been constantly raised both by official and non-official agencies. Into the history of the appointment of the Decentralization Commission, its recommendations or the extent to which they had been given effect to before the introduction of the Montford Reforms, it is unnecessary to enter. But it may be said that it gave a very clear indication of the trend of public opinion in the provinces. The introduction of the Reforms of 1920 accentuated the situation and the demand for autonomy grew in intensity, till there were few indeed among British Indians who stood for an absolute unadulterated unitary form of government at the centre of British India. Various administrative measures were adopted which facilitated a greater devolution of power to the provinces, and the reforms themselves postulated that so far as the transferred subjects were concerned, they were to be normally administered without any reference to a central agency.

#### BRITISH INDIA FEDERATION

The line of advance over Diarchy in the provinces was obviously the transfer of 'reserved' subjects to the control of Ministers; and it was felt as an axiomatic truth, that when

these subjects were further transferred to popular control, Provincial Governments will cease to be the agents of a central administration. That is how the idea of a British Indian Federation came into prominence; and many writers and thinkers felt that the line of advance politically was to form a British Indian Federation, with responsible autonomous provinces, and a responsible Federal Government for purposes common to all the Provinces. It may be stated in passing that the line of demarcation between a Federal Government and a Unitary Government whose provinces enjoy a large measure of decentralization, is in practice not considerable.

#### A HALF-WAY HOUSE

But all the time there was a feeling that a British India Federation was only a half-way house; that the real solution lay not even in a British Indian Federation; and if politicians did not press for the logical extension of the idea of that federation; if public men did not boldly and firmly put forward the idea of an all-India Federation, which would include not merely British Indian provinces but also Indian States, it was because they felt doubtful as to the attitude of Indian princes in this matter. Those of you who have followed the drafting of the Nehru Constitution will remember that that committee which went into the question very exhaustively, put forward the ideal of an all-India Federation; they visualised the day when such a federation could come into existence. They did not reach the logical conclusion of a constitution based on an all-India Federation merely because they could not then get, in spite of invitations privately issued and openly sent out, the cooperation of those Rulers of Indian States in the framing of such a constitution. Composed as they were, inhibited by circumstances as they necessarily must have been, with jealous eyes watching their progress—jealous eyes of those very persons who had asked them and challenged them to frame an all-India constitution—how could they get the cooperation of princes at that stage in the drafting of that constitution? And so the Nehru Committee suggested the possibility of an all-India Federation in their constitution, but could not work out its details because one of the

consenting parties to such a constitution was not coming forward to cooperate in the task.

Now I would like to ask myself why it is that an all-India Federation is so necessary at all, and why we should not confine ourselves to a British Indian Federation where unity of interests is so well recognized, where questions can so much more easily be solved, than in, by and through, an all-India Federation?

#### ALL-INDIA FEDERATION

The question of an all-India Federation is a complicated one and it will be no exaggeration to state that even at the present moment, many are unable to understand the need for it, or the advantages that may accrue from such a Federation. Let us examine for a moment those subjects of common concern to all the provinces which must be administered by a British Indian Federation. They are Customs, Railways, Posts and Telegraphs, Currency and Coinage, and Defence, to name only a few of the nature of subjects of administration which must necessarily be controlled by a central administration. To what extent can British India deal with these subjects through a Ministry responsible to the legislature and not controlled or directed by any authority at Whitehall? It may be pointed out that these subjects are matters of common concern not merely to British India, but to Indian India as well; that the States are as much interested both in the formulation of policy and in the administration of these subjects generally speaking, as British Indian Provinces are. It is true that at the present moment, with an irresponsible executive at the centre of British India, the subjects are dealt with by a Legislature which is largely elected, and laws in relation to them are passed—in theory at least—according to the wishes of that legislature. Critics may argue that Indian States have no voice at the present moment, owing to their lack of any representation in the Central Legislature, either in the shaping of policy or in the administration of these subjects; and that no right of theirs will be taken away if the present system is continued with the mere substitution of a responsible Ministry for an irresponsible Executive. A further detailed examination of the question will show that

neither in theory, nor in actual practice, is the case as simple as it may appear at first sight.

#### DUAL CAPACITY OF GOVERNMENT

The Government of India at the present moment represented by H.E. the Governor General in Council, has a dual function. It is not merely the head of the British Indian administration, but also represents what has been termed the 'paramount power'. It is in this dual capacity that various questions affecting Indian States and British India alike have been dealt with by the present Government of India. In theory, the States have a right to be consulted; and in some instances at least some of the States have been consulted by the paramount power acting through the Political Department of the Government of India, on questions which affect both British India and Indian States. At a time when the supreme decision was entirely in the hands of the Government of India, when there was no question of consultation, much less of accepting the wishes of an Indian Legislature largely composed of Indian elected members, this dual function was obviously discharged by the Government of India without any difficulty. In actual practice perhaps, and one may go further and say almost certainly, neither British India nor British Indian opinion was taken into confidence before the introduction of such measures. But with the introduction of the new Government of India Act in 1919, things began to change. British Indian opinion had a right to be consulted; and in fact on many of these issues it was necessary to secure its cooperation and active assent before a measure could be passed into law. The series of Tariff Bills that have been dealt with by the British India legislature; the duties that have been levied from time to time on imported articles; the help that has been rendered to certain indigenous industries on the recommendation of the Tariff Board are cases in point. But in these matters, it is claimed that the Government of India, before it submitted for the decision of the Central Legislature its proposals, had consulted the wishes of Indian States and Rulers, and though not bound by any one of them for obvious reasons, had assured itself of the general support of the majority of the States. The paramount power had

therefore discharged its duty of consulting the interests of Indian States; and the Government of India then had only to consult the Indian Legislature to see that the resultant proposals had to an equal extent the support of that legislature. It was obvious, however, that while in theory this may be all right, in actual practice, it worked very differently. Even if the paramount power had been scrupulous enough to have really consulted every one of the large and small States, to have weighed with meticulous care the opinions of each one of those States, even then, when the measure had actually gone before the legislature and that institution was completely seized of it, the amendments carried out by it were not capable of being subsequently referred for similar consultation to the Indian States.

During the years that followed the introduction of the new constitution, the Indian States were not slow to realise the manner in which they were being affected by decisions of the Central Legislature; and almost simultaneously with the introduction of the new constitution, a reorganised Chamber of Princes had been brought into existence, a body which during the last decade, has had very considerable influence in organising opinion among the Rulers of Indian States and in bringing them together for joint confabulation—a task which had never been attempted before. For the first time in the history of India, rulers of various States came together to confer in peace on matters which affected them in common and to take measures to protect their Order.

#### STATES' POSITION

The position of Indian States with reference to the Government of India has changed from time to time. Before 1818 they were absolutely independent States with full sovereign rights, and with no sort of subordination to the East India Company. Since that time, however, many of the States accepted British suzerainty and came to occupy a position of subordinate isolation. After the Mutiny, when the Government of the East India Company passed into the hands of the Crown, a greater degree of unity was gradually brought about between Indian States and British India. The historic

proclamation of the Queen granted these States the position that they occupied under various treaties. It said :

‘We hereby announce to the Native Princes of India that all treaties and engagements made with them by or under the authority of the Honourable the East India Company are by us accepted and will be scrupulously maintained and we look for the like observance on their part. We desire no extension of our present territorial possessions; and while we will permit no aggression upon our dominions or our rights to be attempted with impunity, we shall sanction no encroachment on those of others. We shall respect the rights, the dignity and honour of native princes as ours; and we desire that they as well as their own subjects should enjoy that prosperity and that social advancement which can only be secured by internal peace and good government.’

But while the treaties made by the Company were accepted as binding on Her Majesty, the policy of the Government from that day has been to make the Indian States integral portions of the Indian polity. This view was stated within a few years of the Proclamation by Lord Canning, when he declared that ‘the territories under the sovereignty of the Crown became at once as important and as integral a part of India as territories under its direct domination. Together they formed one direct care; and the political system which the Moghuls had not completed and the Mahrattas never contemplated, is now an established fact of history.’ But this very speech indicates that the unity has been brought about by two distinct attributes of the Government of India, one derived from the fact that the Crown of England was the paramount power over the feudatory States; and the other that it had direct and complete domination over that portion of India called British India. However much the paramount power may have extended its rights and privileges, to whatever degree Indian States have been subjected to the supervision and control of that power, the distinction between these two functions has to be kept in mind.

#### REFORMS : EFFECT ON STATES

When therefore the substitution of the present irresponsible executive at the centre by a responsible ministry, controlled by an elected British Indian Legislature, was contemplated, Indian Rulers began to ask the question as to how they would be affected by any decisions of such a legislature and

such a government. During the decade since the introduction of the new reforms, Indian State rulers have been pressing for some direct voice in the management of affairs of common concern to British India and Indian States. A reference to Resolutions passed by the Chamber of Princes from time to time would show how the mind of the Princes has been reacting on these various questions and what pressure was being brought to bear on the paramount power. The matter came to a head when the Butler Committee was appointed and the States demanded that without their own agreement, the rights and obligations of the Paramount Power should not be assigned to persons who are not under its control, as for instance, an Indian Government in British India responsible to an Indian Legislature. The Butler Committee in fact held that the 'Treaties, engagements and Sanads have been made with the Crown and that the relationship between the Paramount Power and the Princes should not be transferred without the agreement of the latter to a new Government in British India responsible to an Indian Legislature.' The report of the Indian Statutory Commission carried the matter a step further. The Simon Commission recognised the force of the contention of the States and their proposal for a Committee wherein questions of common concern may be debated between the representatives of Indian States and British Indian representatives, was a formal acknowledgement of the justice of the claims put forward by the Indian Princes. But the constitution suggested by the Simon Commission postulated still an irresponsible executive at the Centre and the proposal for a Committee was only intended as a method whereby the views of Indian States and of British India could be ascertained by the Paramount Power and the Government, before a decision on the subject was arrived at.

#### CONSULTATION BUT NO DECISION

If it was merely left at the stage of consultation, the paramount power would again come, in some form or another, and would try to hamper the decisions of the British Indian legislature. It was under such conditions, that the necessity of an all-India Federation began to be increasingly felt by many politicians who had bestowed thought on these pro-

blems. British Indian statesmen and Rulers of States equally, felt that the line of advance and the solution of these problems was, not to have a mere British Indian federation, with some sort of consultation with an amorphous body composed of representatives of Indian States' Rulers, but that the real line of progress was by an amalgamation of the interests of these two parts of India, by getting together the representatives of these two parts into a common legislature, and by having a policy adopted by a majority of the legislature. If on the other hand it was held—as Sir John Simon and his Commission advised—that in matters of common concern, whereas the British Indian legislature could formulate its policy but before the policy could be given effect to, a sort of consultation should take place between a committee of the British Indian legislature and a committee of the Chamber of Princes—that this Joint Committee should have, not indeed the power of finally deciding, which one could understand, but of merely coming together, confabulating and arriving at no conclusions whatsoever—the result could easily be imagined. In the name of the States, the paramount power could effectively intervene and state that a decision of the British Indian legislature cannot be carried out, because it is in conflict with the aim and views of the States themselves. Not merely that; It is obvious that in many instances, a genuine feeling may be entertained by British Indians that behind the decisions of some of the States at least, in this amorphous body which I have called a committee of the Chamber of Princes, may be the opinion, the real purpose and intentions of the paramount power itself. These irritating doubts and suspicions cannot possibly lead to a successful or smooth working of the government. It must necessarily involve friction, creaking at every stage, and the machinery must necessarily break down. Such were some at least of the reasons why an all-India Federation was considered more desirable than a pure British Indian federation.

#### CHAOS IN ADMINISTRATION

Taking a simple instance—the administration of the railway system—British Indian railways cross through a number

of State territories and at the present moment, State jurisdiction has been ceded to the Government as represented by its paramountcy, and the administration is thus run more or less efficiently. The state of affairs would be entirely different if the Paramount Power were to re-vest that jurisdiction in the States, and ask British India to make its own terms with Indian States. If every State were to use its jurisdiction, the railway line from Delhi to Bombay would have to subject itself to 30 different jurisdictions, involving an impasse fearful to contemplate. In the administration of customs, with maritime States lying in all parts of India, and with some of the bigger States on the borders of the land frontiers of India, nothing but chaos could ensue, if there were not some arrangement whereby common agreements could be reached between British Indian Provinces and Indian States. Currency and Coinage again, presents a similar problem, though of a more technical nature and more difficult to follow. Under present conditions, owing to the intervention of the Paramount Power, very few of the States have the right of minting their own coins; and none except Hyderabad possesses the high dignity of fiduciary issue of paper, which however, is practically meant for internal circulation. Most of the States have closed their mints by agreements made with the Paramount Power, some permanently, and some for a definite period of years. The economic chaos that would ensue if these rights were to be revived or extended, will easily be understood by any student of economics.

#### IS BRITISH INDIA HELPLESS?

What then is the position of British India? If in the course of the statement made above, the inference is drawn that British India is absolutely impotent to manage its own affairs and that it cannot administer any central subject unless the States joined in a Federation, it would be a very incorrect appreciation of the aim of the arguments advanced so far. It is not suggested that British India cannot administer these central subjects so far as it concerns its own provinces. There is no impossibility in the functioning of such administration. Indeed if there were not the cheerful hope that Indian Princes are willing to come forward and join in an Indian federation,

there would have been no choice but for British India to proceed as a federation and try to manage its affairs as best it can. On the basis of reciprocity or even by establishing a land cordon where the customs union or *zolleverin* is threatened, and by similar measures it will not be beyond the wit of British Indian statesmen to deal with Indian States and manage such subjects of common concern. All that is intended to be pointed out is that the administration would then have to be carried on under difficult and trying circumstances from day to day, and the extent of responsibility in the administration of these subjects would have been very considerably neutralised by the action of the Indian States.

#### FEDERATION—NOT A NEW IDEA

It was under these circumstances that men's minds turned to the question of an all-India Federation as a practical solution of the immediate future. Many of our best statesmen—both in British India and the States—have thought of this idea. They have dreamt of a unified India, including British Indian Provinces and Indian States, speaking in the name of the whole nation, voicing forth the sentiments, hopes and aspirations of peoples who though divided by artificial geographical boundaries are still ethnologically and by consideration of economy and politics, unified. One of the Rulers of Indian States is reported many years ago to have said :

‘My goal is the United States of India, where every province, every State, working out its own destiny in accordance with its own environment, its tradition, history and religion, will combine together for higher and common purposes; each subscribing its little quota in a labour of love freely given for a noble and higher purpose.’

The Maharaja of Bikaner in a speech in 1928 said :

‘Those who have given the subject of the future of British India and the Indian States some thought, including in an humble way myself, cannot but come to one conclusion, namely that the ultimate solution and the only salvation of India is some kind of Federation.’

And so there have been various forces at work which have resulted in the consummation of this idea—the formation of an all-India Federation, combining in one whole, Indian States

and British India—entities which have so far been kept apart and which have had very little opportunities either of exchange of ideas or of joint action for common purposes.

#### FORCES FAVOURING FEDERATION

The great ideal of national unity which has been emphasised during the past few years and which has always dominated the minds of Indian politicians as well as Indian rulers, has to a large extent been the cause for the response that States and British India have been able to make in bringing about the federation. The demand of British India again to exercise rights over subjects of common concern to the fullest, furthest and freest extent possible; the demand for responsible government and responsible administration of those subjects which, as has already been shown, could not be conceded fully, or if conceded would have been indirectly thwarted if the States had not entered the federation—has also been one of the dominating reasons for the emergence of this idea of an all-India Federation.

India moreover has been playing a larger and greater part in international affairs, though some would belittle its real value and significance by pointing out the undoubted consideration that in such matters British voice was still predominating, and British opinion was undoubtedly influencing those who spoke in the name of India at such gatherings. But even so, at the League of Nations, at other international conferences, at the Imperial conferences, representatives of India—both British and Indian, provinces and States, rulers and democrats, have taken common part. In fact, during the past few years, British Indian politicians have led delegations to Geneva alternately with Rulers of Indian States; the identity of interests between the two Indias had to a certain extent to be recognised; and the experience of the delegates, whether they were from British India or represented ancient houses in Indian States, made them feel the necessity for organising the whole constitution on the basis of an all-India federation. Considerations therefore of international prestige, of the position which India would undoubtedly occupy in the comity of nations, if it were one combined whole, had no little part in the shaping of this idea of an all-India Federation. Again

the question of common defence for the whole country—which requires special treatment and about which I hope to say something later—has also led to the same conclusion that in the formation of an all-India Federation lies the true and eventual solution of this most difficult, complex and vexed question.

The solution again of complaints, claims and interests between British India and Indian States, which must necessarily arise in the administration of subjects common to both parts of India, by peaceful and amicable means, could only be brought about essentially by means of deliberative bodies in which both the States and British Indian provinces are represented. The necessity for such amicable settlement of questions of common interest to the two parts of India must be clear to you from what I have already stated; and this again has been one of the factors that has led to the emergence of the plan of an all-India Federation.

More than all, the economic crisis through which the world is passing and which India has not escaped from, has shown the essential unity of interests between British India and Indian States, and a joint deliberative body was felt to be essential for the consideration, adjustment and solution of vital economic questions.

Indian States and British Indian provinces, moreover, could not be kept in different watertight compartments. The surging waves of nationalism which have washed British India during the past few years, could not possibly leave Indian States high and dry however much they may be protected by an imperturbable paramount power. States which had been nurtured in seclusion, watched over with jealous interest by those who wanted to keep them in 'splendid isolation', kept apart from all those supposedly contaminating influences which came from parts of British India, given over to wild ideas of modern democratic thought, found themselves in the vortex of movements for which they were not responsible, and subject to conditions which they felt little hope of governing or controlling. That impelling consideration—the economic one—as much as the realisation of the fact that the two parts of the country acted and reacted on each other, led again to the idea that in an all-India Federation lay the only

true and permanent solution of the political difficulties through which the country was passing.

Above all, in the life of every nation, there comes a time when great individuals, with far seeing courage, commit their whole generation to a policy which they feel is in the best interests of all; and so it has been with our country. During the cataclysm through which we have passed during the last few years, men's minds were sharpened as never before, and individuals of light and leading, having thought over the matter most carefully and deliberately, felt that in the formation of an all-India Federation lay the salvation of India. It would not be desirable to mention the names of such individuals who have played a great part in working out this idea and in making it a possibility for the immediate future. But I have no doubt that such names will suggest themselves readily to those who have followed with any degree of interest the events of the last few years in our country. Beginning with the formulators of the Nehru Scheme, there have been a series of statesmen, both in British India and Indian States, who have given their best attention to the problem, and have thrown the whole weight of their influence and name in the task of preparing the country for its inevitable future.

#### ANOMALIES—AND THE SUPREME NEED

I have dealt at this great length on the peculiar problems before the framer of an Indian constitution, because an understanding of these problems would lead to an understanding of the special adjustments and compromises that have inevitably been necessitated, to bring about the realisation of that ideal. Before I proceed to deal with the details of the structure, that may be built up on the basis of an all-India Federation, and the special provisions that have to be made to reconcile conflicting claims of Indian States and British Indian provinces, of various communities, classes and creeds, of majorities and minorities, I should like to state that an appreciation of the vital need of forming an all-India Federation as the only true solution of the constitutional problem, will lead one to assess at its real value some of the special provisions that are suggested. It will be found in the course of my further exposition of the constitutional structure, that it is by

no means either an ideal or a perfect system that is attempted to be set up; that there are anomalies of one kind or another in many of its attributes, that the fear of the structure creaking in many places is not altogether unfounded. But there is one supreme consideration that may be borne in mind. To those who feel that much has been given to a Federal Centre and much taken away from Provinces and sovereign States; and to those many more, who feel perhaps more strongly that enough has not been given to the Federation to justify the hope that it will function efficiently, and that it will fulfil the amplest needs of the country and its vast population, I would only like to recall the words of a great statesman. After having established the North Germanic Federation in 1871, through methods partly of cajolery and partly of coercion, through all the intrigues that Bismarck was capable of, even to the extent of provoking a great war with a neighbouring State, so as to bring about a unity of effort in domestic matters—Bismarck made these observations with reference to the Federation that he was able to bring about :

‘The defects of particularism, weakness abroad, heterogeneity at home, obstacles to development of commerce and transport, the Federation had completely combated; and completely to abolish them is its further duty. Give it enough time; Centralization is more or less a matter of force and is not to be carried through without a violent operation, sinful in the sense of the constitution; and such action whether formally covered or justified, leaves places which bleed internally, and no man knows for how long this may go on. I believe that one should ask oneself: In the Germanic States, what can be regulated in common? and that which need not be regulated in common should be left to local development. Thereby one serves freedom and one serves welfare.’

#### UNITS—NOT ALL ENTHUSIASTIC

There is also the consideration to be borne in mind, that under the circumstances under which an Indian Federation is being set up, all units which will form the Federation may not be equally enthusiastic either of the constitution, or of the central fact which underlies the constitution that responsibility for administration must inhere in Indian hands. It may therefore be that some units may have to do all in their power to attract the entry of others into the Federation; and that in particular British India may have to make

special concessions to facilitate the entry of Indian States into this Federation. To have poured ridicule on their claims—or as some would have them, their pretensions; to have riddled them with criticism for that exceptional treatment which individual States required—was a comparatively easy task and facilely calculated to break up all prospect of an all-India Federation and to postpone to the Greek Kalends the prospect of a United India. But to genially permit and suffer the characteristic anomalies which States cannot part from, to have allowed even recognition of some of them by the Federation, was perhaps the more difficult, if also, the wiser and more farsighted task. Above all, in drawing up constitutions for vast peoples and cultures, one must avoid the mistake on the one hand of making provision for every eventuality and safeguarding all matters for all eternity; and on the other, of just looking over the hedge and not taking note of what is inevitable in the very near future. There is a resultant which no constitution will provide for, but all framers of constitutions must indubitably take note of in the working of a federation. The inevitable influence of personal contacts, of pleasant amenities and of mutual understanding which will grow up in the legislatures, where men drawn from various provinces and States will work together and will be fostered in the lobbies, that influence will do more to smoothen conflicting sentiments and to avoid causes for friction, than any frigid provisions on the Statute book.

#### THE FEDERATING PROCESS

We shall now turn to a consideration of the constitutional proposals which are involved in the setting up of an all-India Federation. The first consideration that presents itself to one in thinking of the formation of such a Federation, is the enormous fact that the various units which will constitute the federation occupy differing degrees of status and possess varying powers of sovereignty. Other federations are known to students and have been working for years and generations; but no federation is comparable to that which will be brought into existence by an all-India Federation. Canada with its autonomous provinces, Australia with its autonomous States,

both owing common allegiance to a King, present one form of federation. The States of America, autonomous again, free and owing no allegiance to any one after the American War of Independence, present the other form of federation which has been brought about. The North Germanic Federation established in 1871, formed of States ruled by princes of equal status, though not of equal importance, also affords another example of a federation. So does the Swiss Federation, composed of its various Cantons. But in every one of these cases, the status of the units was more or less equal; they were not in different categories. Take the case of India: what is the position of British Indian Provinces? What would have been the position if a British Indian federation had to be established? The provinces have at present little autonomy indeed. The 'transferred' subjects form just the fringe of the administration which has been transferred to popular control. The great taxing subjects, the great financial resources of the government, are still in 'reserved' hands; and that means that they are being administered according to the wishes and dictates of the Central power. The reserved department is merely an agency department of the Government of India, and in any detail whatsoever, however ludicrous it may be according to theory, and according to recent experience in practice also, the most minute control has been and could be exercised by the Government of India over the administration of the reserved departments of the provinces. Therefore provinces are not sovereign in any sense of the word; they are absolutely dependent, and if a federation has to be formed, the provinces have to be re-incarnated; they have to be made sovereign units. According to the ordinary idea of a federation, States of equal status possessing sovereign rights are supposed to give up a certain amount of their sovereignty to a common organism that is thenceforward brought into existence, called the federal organism; and that amount of sovereignty which has been given up is exercised by the federal centre. In British India, on the other hand, the unitary Government at present has the entire sovereign power, and it is by delegation to the provinces, by making the provinces grow to the status of sovereign provinces, that a British Indian federation can be brought into existence.

So that, the process has really to be reversed in the case of British India.

Taking the States, on the other hand, I have already tried to show to you that Indian States do possess sovereign powers in theory; that, apart from the fact that the paramount power can exercise some amount of influence on certain specific contingencies arising, Indian States have complete right of sovereignty so far as their internal administration is concerned. They have ceded their foreign and political power to the Government of India; but unless a State is misruled or unless the dynastic succession of the State comes into question, the paramount power, in theory at any rate, cannot interfere with the State; so that States are sovereign, and when a federation is formed, States have to cede a certain portion of their sovereignty. Therefore many people have asked the question: 'How can a federation be brought about between provinces on the one hand who are so utterly dependent, and States on the other who are sovereign States?' I see no difficulty in the matter. It is only a question of adjustment; of the Central Government delegating a great portion of its power to the provinces; and of the States and Provinces joining together in vesting a certain amount of power in the hands of the federation.

#### MERE PROVINCIAL AUTONOMY—A DANGER

What will really happen if an all-India Federation is not to be brought about at once? Well, the process of the Centre delegating its power to the provinces and thereafter begging from the provinces for power to form a federal centre, will then come about. We do not want it to come about; and therein you will understand the reason why many prominent politicians of British India vehemently opposed the idea of provincial autonomy coming first, and a federation either of British India or of all-India, perhaps being postponed till the working of provincial autonomy was known. The danger of it is obvious. When a federation is to be formed, the question of the States ceding certain of their sovereign rights has always been a difficult question. States have claimed that they cannot part with more than a certain portion of their sovereignty; and it was only after a great

deal of agitation and after prolonged negotiation, that many of the States have been able to come forward to form a federation. When I tell you that it took 13 years for Australia and at least six conferences held for months together, before the Australian Commonwealth Bill could be accepted by the various provinces in Australia, you would realise the tremendous difficulties.

And British Indian politicians asked themselves the question: 'is it not madness to give up the advantage that you now possess of a unitary government established in the centre; British Indian provinces have no sovereign rights at all and therefore it is much more easy to take what you want for the federal centre of the future and relinquish only the rest to the provinces. The only difficulty therefore lies in negotiating with the States and not with individual British Indian provinces. But how difficult would it be if you should cede complete sovereignty to the British Indian Provinces and thereafter look to them for a cession of those powers of sovereignty which are required for federal purposes?' The solution therefore lies in getting a federation established simultaneously with the grant of provincial autonomy and not in making the Federation a mere contingency after provinces get full rights from the centre.

## II

### THE FEDERAL LEGISLATURE

The constitution of a federation involves the establishment of three agencies—a federal legislature to make laws which will be applicable to the various federating units; a federal executive which will carry out these laws and administer those common subjects which are entrusted to the federal government; and a federal court which will resolve disputes that may arise either in the power to make laws or in the application of those laws, either between the federal centre and a unit; or between two federating units.

Tonight I would like first to discuss the question of the federal legislature. In all federations, it has been assumed that the legislature should be of the bicameral system; that

is to say, that there ought to be two houses, a lower house representative of the will of the people and an upper house representative of the interests of the federating units as such. Whatever controversy there might have been with reference to the desirability or advisability of having a bicameral legislature in a unitary form of government—and there has been a great deal of controversy over it—such a controversy has hardly been raised with reference to a federation. Till very recently, one can say that opinion was undivided that a Federation necessarily postulates the existence of two houses. As those who have studied the history of federations are aware, it was the American Federation that first laid down this principle of two chambers firmly and unmistakably. But latterly the theory has been evolved by some constitutional writers of very high repute, that a bicameral legislature is quite as unnecessary in a federation as indeed it is claimed to be by many people in a unitary state. They argue that a single house could carry out all the purposes of the legislature and that it is a waste both of time, money and energy, to have a second chamber which will have any sort of advisory or controlling influence. They, in fact, suggest that the old consideration of the interests of the State being preserved by a second chamber does not really operate and is of no effect whatsoever, so far as the working of federations is concerned. But if you examine that theory further, you will find that they have a different conception of the development of a State altogether.

#### STAGES OF ADVANCE OF STATES

Their conception places the State in three grades of advance. The first is the conception of a confederation, where States of sovereign power come together merely for advisory purposes, by trying to get help from each other under certain specified conditions. The resolutions that are passed by the confederation are purely of an advisory nature and each unit of the confederation is free to adopt or reject these resolutions. To take a modern example, the League of Nations may be likened more or less to a confederation. If a resolution is passed at the International Labour Conference at Geneva, every sovereign State which is a member of

the League of Nations, is expected to adopt it, but may even reject it. The passing of the resolution at Geneva has no automatic effect in any single State that is a member of the League. That is only a very rough parallel to the idea of a confederation. In fact, many federations have evolved from a confederation. The North Germanic Federation was a confederation of sovereign States till 1871 and by the great influence and power of Bismarck, it thereafter became a federation. Some modern constitutional writers feel that after a confederation has worked for some time, a greater cohesion can be brought about between the various sovereign units and the confederation may develop into a federation, with a central purpose, with a common objective, with laws made applicable to all the States merely by the fact of their having been passed by a federal house, and of administration being carried on similarly by a common executive. The earlier conception, and in fact the conception of most constitutional writers of authority, is that a federation is an end in itself, that there need be no further advance.

#### A CENTRAL STATE

But modern political writers like Prof. Laski of England and his colleagues in Germany, have thought of this Federation merely as a half-way house. They carry the progress of the State a step further. When we come to the question of administrative powers and of residuary powers, we shall see that federations which have been established with the idea that State rights are to be preserved intact, have gradually evolved into some form of approximation to a centralised Government. They therefore claim that the real purpose of the State is not to remain perpetually as a federation, but that it should become a centralised administration, a centralised government, with a large devolution of legislative powers, if necessary, to the units. Having this in mind, Prof. Laski and other writers think that there is no place for a second chamber representing the individuality, and perpetuating the individuality of federating units and that the sooner the second chamber is abolished, the more facile will the task become of turning the federation into a centralised government. But that is only a very recent theory which

Prof. Laski, with his idea of the pluralistic State, has evolved and which has not been accepted either by administrators or politicians, or indeed by, what I may term, the orthodox section of constitutional writers. Leaving aside that theory for a moment as obviously incapable of adoption to Indian conditions, we shall confine our attention to the more normal feature of a federation, that is to say, that a federal legislature is generally composed of two chambers, an upper chamber and a lower chamber.

#### WHY A SECOND CHAMBER ?

The need for an upper chamber arises from a desire for the preservation of the rights of sovereign States as far as possible. At the time when the American federation was in formation, this question arose in a very acute form. There were advocates of the smaller States who said quite logically, that while they had given up certain powers to the federal centre, they had preserved intact many other powers, and that such powers could only be maintained in future by a specific representation of States in a chamber which will take care of the individuality of such States. The controversy that raged over the preservation of rights of these individual States and over the power of the lower house, is one of those historic controversies which more than shook to the foundation the possibility of a Federation being formed for the U.S.A., and, but for the fact that ultimately sheer common-sense prevailed on both sides, perhaps a federation of the U.S.A. would have been an impossibility.

#### EQUALITY AND PROPORTIONALITY

The States, small and big, which were intended to form the American Federation, may have had equal status, and equal rights of sovereignty in theory; but certainly did not possess equal powers in fact. To compare the big State of New York with its population of ten millions, with the small State of Nevada with its population 18,000, and to suggest that New York and Nevada should be placed on an equal and identical basis in any constitution was to argue against all natural tendencies; and yet, 150 years ago, that argument was considered not merely germane to the framing of the

constitution, but absolutely logical for the protection of the States' rights; and it was pressed not merely for the upper house but also for the lower house so far as representation was concerned. Jefferson, the advocate of the smaller States, said, that if population was the only basis of representation either for the lower or the upper house, these small States which were sovereign States, would be devoured by one single large State like New York, or Philadelphia, and that the process of framing a constitution whereby only certain powers were given to the Federal centre and others preserved for the units, need not be gone through. Madison, on the other hand, the advocate of what I shall term 'proportionality' (that is to say of a legislature having its representatives on the basis of population,) argued that the bigger States contributing more for the success of the Federation must have a proportionately greater representation in any legislature. Ultimately a middle line was taken. Both the advocates of the great States and the advocates of the small States, had to be satisfied with some sort of compromise, and it is interesting to note, however anomalous it may be, however illogical it may appear to be, that the essence of successfully forming a federation consisted in being able to agree to or arrive at compromises. While they gave up the principle of equality so far as the Lower House was concerned, they insisted on the formation of an upper house on the principle of 'equality' as between State and State. It was because the States feared that some of them may be engulfed after the Federation had been set up, that an Upper Chamber was necessitated, and States were represented therein.

Other arguments which are usually applied in the case of unitary Governments, were also present in the minds of those who tried to draw up a Federal constitution for U.S.A., and the idea that the second chamber would be some sort of a check on the precipitate advocacy in the lower house of thoughts and ideas which may not be well and maturely considered by the public, was one of those considerations which led to the formation of a second chamber. Madison again, who argued for the second chamber with all the vehemence that a good advocate can usefully employ, said that in the years to come the second chamber would play a big

part not merely in preserving the individuality of the various States concerned, but also in trying to see that interests which may not always be represented adequately in the lower house, may not be swamped or ignored by hasty legislation that may be passed by that house.

Ultimately, the theory of 'proportionality' or representation according to population, prevailed in the lower house; and in the upper house, the theory of 'equality' prevailed.

#### EXAMPLES OF SECOND CHAMBERS

The example of the American constitution has been copied by every one of the subsequent federations. In America, Nevada with a population of 18,000 has two representatives on the Senate or the second chamber, equally with New York which has a population of ten millions. Pennsylvania, a big State which has as much population as the six States which go under the name of New England States, has two representatives, as against two representatives from each of those six States. So also when the Federation of Canada was formed, Lower Canada and Upper Canada, the French and British Provinces, were each given 24 representatives; and the maritime provinces which were formed of Nova Scotia and New Brunswick, were taken as a single unit of the Federation and each of them given 12 representatives. So it has been in Australia; and so it has been with reference to the Cantons of Switzerland.

These examples could not be ignored in the consideration of an all-India Federation.

#### STATES REPRESENTATION ONLY IN SENATE

If there were to be two legislatures, the first representing popular opinion and the second representing the State as such, the question naturally arises, how such representation should be secured from British India and from Indian States. At one stage in the course of the discussions, it looked as if the Indian States would not agree to have any share in representation in a lower house, but that they would confine their representation to the upper house. They possibly felt that it was not expedient for them to send representatives to the lower house on the same basis as similar repre-

sentatives would be sent from British India. An acceptance by them of representation in the lower house would involve, they foresaw, at some time or other the introduction of responsible government in their own areas and the election of members to the federal lower house on the basis of a popular franchise. The problem would have been extremely complicated, if it were not well-nigh impossible of solution, had the States continued in this attitude and contented themselves merely with a representation in the upper chamber. The lower house would then have been representative purely of British India, and though it might discuss all questions which were of common interest, it could never have had that power, status and influence which a popular chamber would have either in a unitary or in a federal system of constitution. The upper house, being the only house which contained representatives of all the federating units including the State rulers saw the implications of the position that was advanced the legislature; the relative powers of the two houses must necessarily have been different. Nothing could have been final which was passed only by the lower house; and nothing which had not been accepted by the upper house could have had any binding effect at least so far as Indian States were concerned. It is a matter of gratification that the wiser State rulers saw the implications of the position that was advanced and the impossibility of maintaining it, and conceded that State representatives should enter both houses of the federal legislature.

#### REPRESENTATION IN LEGISLATURES

The question of the representation of Indian States and of British Indian Provinces in the two legislatures must necessarily prove one of the most difficult of questions for solution. Arguments may be advanced on the one side as cogently as on the other, that representation should be of a particular proportion as between Indian States and British India. In most federations, while States have agreed to a representation on a population basis in the lower house, they have been firm in requiring a different principle to be adopted so far as representation in the upper house was concerned.

## BRITISH INDIA—ONE UNIT, AN OBSESSION

This doctrine of proportionality in the lower house and equality in the upper house, has been recognised as we have seen in the federations of America, Canada and of Australia. The question arises, what shall be the policy so far as India is concerned? There has been a long argument as to whether British India should be considered as one unit as against Indian States, though in entering the federation, provinces of British India would enter as separate units as much as Indian States. It is perfectly true that British India, as has already been pointed out, has attained a certain amount of unity of purpose and of aims. By long years of centralised administration and by the efforts of the people of British India, there has developed a spirit of common understanding between inhabitants of various geographical areas. But it is both theoretically and in actual fact, incorrect to assume that in a federation, British India will act as one unit. However incorrect the assumption may be, Indian States were obsessed by the idea that they were entering a Federation in which the dominant partner will be British India. Ideas of supremacy which Prussia soon obtained in spite of the other States, in the North Germanic Federation, undoubtedly weighed with many representatives of Indian States. It therefore became apparent that the claims of States for representation in the lower and upper houses would largely depend upon the consideration whether they felt that British India was going to become the dominant partner in the Federation or not. The representatives of the States demanded that following the analogy of other Federations, there should be equality of representation in the upper house as between Indian States and British India.

## THE PRINCIPLE OF WEIGHTAGE

The matter has been discussed threadbare at various meetings. On the one hand, there has been firm, strenuous almost vehement opposition against the idea of any weightage being given to States as such. It has been argued that the principle of weightage is vicious and that whatever justification may exist with reference to minorities, no such consider-

ation could possibly be allowed to prevail in the case of representation of Indian States. Their claim for weightage in the lower house has been criticised as unnecessary and involving an irrational basis; and their claim for weightage in the upper house has been resented by some at least as an infringement of well known theories. It has been argued that federating units never claimed weightage and that it would be a novel idea—an anomaly of the worst kind—to recognise this principle in an Indian Federation.

As in many such cases, both reason and truth is to be found in some *via media* between these two extreme and conflicting viewpoints; it is futile to think of British India as one unit in the federation, even as it is almost ridiculous to think of Indian States acting as one united body in such a federation. Regional and geographical ties will play a larger part in bringing about unity of effort between the provinces and States, than any theoretical consideration of whether a unit is a British Indian Province or an Indian State. Common economic problems would have far greater value in the line of alignment so far as association of provinces and States are concerned, than any general consideration of the class to which each unit belongs. Geographically, ethnologically, and by common economic interests, there is likely to be a greater degree of agreement between the Province of Madras and the States of Mysore and Travancore, than between an extreme maritime State like Travancore and the northernmost inland State of Kashmere.

#### WEIGHTAGE—SAME AS 'EQUALITY' IN FEDERATIONS

Again, the idea that Federations have never recognised the principle of weightage, can easily be proved to be inaccurate by any one who has bestowed thought on the subject. It is true that the word 'weightage' has not been used in many of the text-books and that it is a phraseology peculiar to Indian politics; but what is the underlying meaning of the principle of equality of representation? If New York, with its ten million people, has two Senators in the Senate of the U.S.A., and the State of Nevada, with little more than 18,000, has the same representation, what else is it but the principle of weightage being applied to Nevada as against

New York? If Pennsylvania has two Senators, and the six States of New England, which have less population than Pennsylvania, have 12 Senators, what else is it except the principle of weightage applied to the New England States? If Lower Canada has the same number of members—24—as Upper Canada, and if the combined maritime States of Nova Scotia and New Brunswick are given equality of representation with the two Canadian Provinces, what again is it but that the principle of weightage has been applied in these cases? If these are anomalies—such anomalies can be multiplied from every Federation known to history. The representation of Prussia was specifically limited, and it did not have the number of members which it was entitled to by population, so that it may not play a dominant part in the affairs of the Federation. It seems therefore from a consideration of pure theoretical principles, that a claim for weightage by any unit of the Federation cannot be dismissed as opposed to fundamental principles.

‘EQUALITY’ LEADS TO ‘WEIGHTAGE’

An examination of the question from another point of view will lead us to the same conclusion. It has been seen that so far as the Upper House is concerned, the federating units are in practically all cases given equality of representation. Now, the federating units, so far as British India is concerned, will be only nine or ten provinces even if the principle of creating new administrative areas is given effect to. The number of States are legion. Excluding those petty estates, the States that are original members of the Chamber of Princes are 109; and there are other States which have kept out of the Chamber, and some which send representatives to the Chamber by Groups. Even so, the federating units of any considerable size among the States which are distinct and whose individuality has to be recognised, will be over 100. If equality of representation was claimed for each one of these States, along with Indian provinces, in an upper chamber, the result could easily be seen. It will be a case, not of British India devouring the States, but of the States devouring British India; and yet those who merely rely on forms and precedents, cannot escape from the

conclusion that it is a perfectly logical demand. It is from this point of view that the demand for State representation of about 50 per cent in the upper house has to be considered.

#### ACTUAL COMPROMISE

After a great deal of negotiation, the large consensus of opinion seems to favour the idea that Indian States taken together, may have one-third of the seats in the lower house, and 40 per cent of the seats in the upper house. This is but a compromise—and as all compromises are—difficult to justify on any logical basis. At one stage, the claim of the States was for equality of representation as between British India and Indian States in the upper house, and proportionality in the lower house. But some of the British Indian representatives felt that that proportion would give the States a very dominating voice in the deliberations of the upper house and that it was far better to accept a slight weightage in the lower house than to agree to such dominating influence in the Senate.

#### THE FUTURE?

There is one consideration at least which emerges from a study of the history of various federations, and which must incline us to soften our judgment a little, when we are far too much carried away by the idea, that States have been given too much importance, or that one section has been given too much representation to the detriment or disadvantage of another section. It is impossible to foresee at the present moment how the institution will work in the years to come and what will be the result of representations based on such percentages. Advocates of equality of representation may indeed have stressed their case far too much and may have relied on numbers in the federation. The history of Federations proves, that, after all, this principle of weightage or equality of representation, has not been of very great efficacy in guaranteeing individual States their right place in the constitution. Within a few years after the formation of the North Germanic Federation, where the same principle was accepted and worked upon, and where the population basis

was not accepted with reference to such a large State as Prussia, the dominant influence of that single State and of its Kaiser, began to be felt in the whole of the German Republic. The Bundesrat, which was the second chamber in the Germanic Federation, and in which Prussia was not given its adequate representation, very soon found itself virtually the slave of that single State. At the time of the formation of the Federation, the feeling against Prussia and of its ruler the Kaiser, was so great, lest the independence of Sovereign States like Bavaria and Wurtenburg would be jeopardised, that when Bismarck tried to give the Kaiser the title 'Kaiser von Deutsch' (Emperor of Germany) it was rejected and the phrase 'Deutsch Kaiser' (German Emperor) was accepted. That is to say, the King of Prussia was not the 'Emperor of Germany' but the 'German Emperor'. But the years that rolled by, proved how mistaken were those who laid all their hopes on the subordination of Prussia and on their importance being recognised by the number of delegates that they could send to the Federal Legislature.

The history of the United States only emphasises this moral. In all crises, economic or otherwise, whenever the American Senate has to play a great part in international affairs, it is not the isolated States in the back woods that have the dominant voice, but it is New York, Chicago, Philadelphia, Washington and such other States that carry the assemblies with them. The Senate tries to get their co-operation and recognises the value of their assent to its proposals. Ultimately, therefore, power will inhere in spite of constitutional subtleties and the statutory grant of equality of votes, in those areas and among those people who are in a position to contribute most to the welfare, the dignity, and the greatness of a federation. So it will be with India. Prophecy is dangerous and not altogether desirable at the present juncture, and therefore without forecasting whether it will be British Indian Provinces or Indian States, or in particular any one of either category that will really count in an Indian Federation, one may safely assert that after all, weightage or no weightage, some units will have more influence than others; some delegates carry more weight than others, even in an Indian Federation.

## REPRESENTATION IN LEGISLATURES

If British India and States were to have fixed proportions in these two legislatures, the question then arises as to how the members have to be elected to either of the houses. Here again, a fundamental distinction has to be drawn between British India and Indian States. Not only are the States different from British Indian Provinces, having sovereign status as against Indian Provinces, but the internal administration of each State differs very considerably. In other Federations, there have been attempts made to equalise the status of the various States, to bring about the same normal conditions of administration in the federating units, before the federation has been formed. It has been laid down in these constitutions, that the federating units must have the same system of government without distinction as between State and State. The constitution of the U.S.A. provides by section 4 of Article 4 that the United States shall guarantee to every State in the Union a republican form of Government. The Canadian and Australian federations guaranteed the then existing democratic system of government to the States till they were further modified by the Legislature according to the provisions contained in the Statute which formed the Federation. The new German Federation of 1919 born out of the stress and strain of the War, out of all those feuds that ended in the Great War, after the miseries of millions of people who went through the valley of death during the War, took note of these examples and provided by its constitution—Article 17, that each of the federating States must have a republican form of constitution. When you therefore hear of the possibility of the Kaiser or some heir of the Kaiser coming back to the throne of Germany, when you hear of the possibility of a monarchical form of government being established in Germany, you must realise the opposition that will immediately be raised, because fundamentally it violates the conditions which have been agreed to by all the German people after 1919. Presuss, that great German statesman who was responsible for drafting the constitution, saw the evil that Germany was suffering from and that the Great War was a result of that monarchical form

of government which was enthroned in Germany, and to which the people, highly educated and democratically inclined though they were, subjected themselves so readily. There is something in the German blood, as it is alleged there is something in the Indian blood, which makes for worship of sovereigns and monarchs. And it was to guard themselves against that danger of a reversion back to a monarchical system of government, that those men who drew up the constitution made this wise and ineradicable provision that a republican form of government must be the only form of government in every federating unit of the German Federation. But—and there is a big but—where India is concerned, one can easily realise how a proposal of this kind, put forward by any of the British Indian delegates would have exploded the conference in no time. It was impossible to suggest to their Highnesses, however sweetly they might have spoken at the conference, and however socially they might have mixed with us, that their States must adopt a republican form of government. At any rate no British Indian delegate suggested it and we have therefore the anomaly that in the Indian Federation, you have not got identical systems of government among the federating units and that the constitution does not (wisely, may I say) propose to make that a condition precedent for the federation. The result of this, we have to examine in relation to representation in the legislature.

#### NATURE OF REPRESENTATIVES

The limitations imposed by these considerations will explain, if it does not justify, the proposals that have been made regarding representation in the federal legislature. So far as the lower house is concerned, British Indian provinces will send representatives from as wide territorial electorates as possible, the electors being enfranchised on certain specific qualifications like the ownership of property or an education qualification. So far as the Senate is concerned, it is suggested that provincial legislatures should elect a certain number of representatives to the federal Senate. The States, on the other hand, stated that the method of sending representatives from their areas to these two houses should be entirely

left to their discretion, and that no provision should be made in the constitution prescribing any particular form of electorate. Some of the States suggested that representatives in either house would merely be delegates from the Government of the State, and that popular opinion in the State will have little voice in the choice of these delegates. Other States who were more farseeing, suggested that in some form or another, public opinion will be ascertained in the choice of some of these representatives. But in either case, it was made perfectly clear that it was not a matter in which either British India or the British Government could dictate, and that it must be left to the governments of Indian States to decide for themselves which was the best course.

#### AN ANOMALY

It must be candidly confessed that there is a certain element of anomaly in a legislature being composed of widely differing groups of representatives. The lower house would have representatives from British India elected on a fairly wide popular franchise, forming themselves into party groups, and trying to have a common policy based on party alignments. The representatives from States to the same house will be mere delegates from each of the State Governments, and as delegates have necessarily to conform themselves to instructions which they receive from time to time, in theory at any rate, it looks extremely unlikely that any of them can ally themselves with political groups in the British Indian side of the legislature. Similarly in the upper house, the British Indian representatives will be the chosen of the chosen, but the State representatives would continue to be delegates of their Governments. But formidable as the indictment against this anomalous system of representation may seem to be, it is fairly clear that in actual practice, the disadvantage may not be as great as it appears at first sight. In the first place, States would find it extremely difficult, and the difficulty will grow in course of time, to send representatives to the lower house who are mere delegates of governments. It is not at all unlikely, and indeed one feels certain, that some States at least will allow such representative assemblies as exist in their areas to choose either all or some at least of their

representatives to the lower house. The example, aided as it will be powerfully by the influence which in the legislature British Indian representatives will undoubtedly have on the delegate-representatives of Indian States, would spread to other States, till at no very distant time, one need not hope in vain that representatives to the lower chamber from all the States would be elected by State legislatures, if not by the people themselves. It is possible that for a considerable time, representatives from the States to the upper house will be nominated by the respective Governments. Such are the concessions that have to be necessarily made, if facts are to be faced, if such widely differing units have to be brought together in a common federation.

#### THE UPPER CHAMBER

With reference to the upper house, it is not likely that the States for many years to come, will give up the principle of Government delegates. The representatives to the upper house from British India will be representatives chosen by the various Provincial Legislatures on the system of the single transferable vote.

#### WHY INDIRECT ELECTION?

There have been two or three considerations which weighed in accepting a principle which on the face of it looks rather reactionary. The first and perhaps not the least important of these is that at least in the upper house, you do away with the principle of the representation of various communities, as such, on the basis of minorities and communities. That consideration weighed with some of the delegates, and why they came to this decision was, not that they did not want the minorities to be represented, but that the system of election by the single transferable vote will be such that their place will be secured without resorting to an avowedly communal electorate or a joint electorate with reservation of seats for minorities. It has been ascertained that on the basis of election by proportional representation from the provincial legislatures to the federal house, all important minorities will have the right to send representatives more or less proportionate to their numbers.

But a reason of far greater weight was the desire that

ultimately, whatever power may be given to the second chamber in the federal legislature, the centre of gravity must shift to the lower house. Numbers tell in all matters; and numbers will tell, when a huge electorate polls in an election to the lower house. The will of the people will be more clearly ascertained in the lower house than in the upper house; and theoretical considerations notwithstanding, statutory provisions apart, ultimately the lower house will be the house which will be the dominant partner in the federal legislature.

For that purpose, it seems desirable that the upper chamber should be indirectly elected rather than directly elected. If both houses were to be directly elected, there are one or two possibilities: You must start by giving a narrow franchise to the upper house, and a wide franchise to the lower house. But it is well known that franchise qualifications cannot stop short at any particular stage; you cannot put a dam against the on-rush of that lowering of franchise qualifications which is inevitable, howsoever high you may put it at the start. The high franchise qualification for the upper house would become lower and lower till it has become absolutely identical with the franchise of the lower house. That has been the experience in other countries. Federation began on the principle stated above; till 1913 the U.S.A. Senate was represented by representatives sent by the State legislatures but by a constitutional amendment in that year, they were elected on the basis of adult franchise by the whole population. Now, if you have two different legislatures constituted practically by the same electors, which legislature can be said to voice forth the will of the people? Is it the first or is it the second? Does the member who speaks in the lower house represent exactly the view-point of the public, or is it the member who speaks in the upper house? These are conflicts which are unavoidable, and which would make it very difficult for the centre of gravity to shift to the lower house, which must be the concern of those who believe in democracy and in the weight of numbers. That was one of the reasons why some at any rate agreed to the principle of indirect representation by the provincial legislatures to the federal upper house.

After all, they will be the chosen of the chosen; they will be the select of the select. A further consideration which was urged was this: that in the stress and strain which overtakes candidates who have to go to popular elections—it may not be possible to get men of advanced age who have reached a certain dignity of years to stand for such popular election. That is not a reflection on the electorate, but is perhaps a reflection on the physical powers at any rate of the candidate who stands for the election—not a trifling matter when age begins to tell and even motor car journeys in country roads cease to be a pleasure. These were the considerations which led to the adoption of the principle that so far as the upper house of British India was concerned, it would be constituted on the basis of indirect election from the provincial legislatures.

#### STATE SUBJECTS

There is one observation which I should like to make, though it is not relevant to my theme. The position of States subjects in various Indian States, their civic rights and the influence that they may exercise in the administration of the State, have been matters of great concern not merely to them but to every thoughtful citizen across the border in British India. Having had opportunities of knowing something of their condition, of realising how in some States their position indeed is no worse than that of British Indian subjects, and may even possibly be better; but that in other States there is no parallel to the position which they occupy—one cannot feel unconcerned over this question. But the limitations of a British Indian trying directly to interfere in such matters particularly at a Round Table Conference are so obvious, that they need not be expatiated upon. It is true that strong observations could be made about the unsatisfactory position of the subjects of some of the Indian States. But one ventures to think that it is not the most cantankerous advocate that is always the successful pleader of apparently hopeless causes. In a matter of such great concern and of unequalled complexity, one feels that a policy of indirect assistance may perhaps be of greater benefit to the State subjects than any other policy. It is the hope of many

British Indians who have partaken in the framing of an All-India Federation, that the best, the surest and perhaps the only way of ensuring that State subjects have in the very near future those fundamental civic rights, those opportunities for honourable association with the administration of their areas, which they and we equally hope for, is (while apparently ignoring the present position of Indian States subjects) by pressing on with firmness, with all possible speed, and with strong faith, the bringing into existence of an all-India federation. The future is in the lap of the gods. It may be that out of zeal, enthusiasm, or sheer lack of foresight, mistakes have been made; miscalculations have been inevitable; but it may also be that those evolutionary forces which work unremittingly, organised, but not altogether, by human endeavour, may yet bring about that quicker and surer realisation of our hopes than we are now able to see and take note of.

#### THE QUESTION OF MINORITIES

There is one more question which I would like to avoid but which I would not be justified in doing so—and that is the vexed question of the representation of minorities. Feeling has been intensely stirred in this country not merely among active politicians, but if I might be permitted to say so, even among sober academicians, over the question of the representation of minorities. I remember very vividly a great academic professor declaiming against any idea of representation of minorities as such, pointing out the example of the League of Nations, as though the League has shown the way how these problems are to be solved.

#### THE LEAGUE PRECEDENT

The precedent of the League of Nations has no sort of application to conditions such as those with which we are dealing. The League of Nations recognises certain minorities in those States to which the right of freedom has been given after the Great War. Those minorities are generally composed of communities which are not really the subjects of the country—men who are not part and parcel of the country; men who do not even wish to call themselves the

nationals of the country. Such persons form in very many cases the minorities. In Poland it is the German that forms the minority; in Zechoslovakia again, it is the German who forms the minority. And all that the League of Nations has attempted to do is to see that these minorities should have some human rights. A right to practise their own religion, a right to be educated in their own language and similar fundamental rights, which are of universal application—and not civic rights as we understand the word—is all that has been guaranteed by the League to them. In fact, you will find in all post-War constitutions, a formidable array of what has been termed fundamental rights. Many of these rights have been drawn up merely for the protection of minorities and the League procedure is very curious. The League of Nations is not the palladium of justice for the minorities as such. For a minority to approach the League it can only be done through a member of the League who can take up the cause of a minority of any country, and place it for the consideration of the Minorities Committee of the League of Nations. It will be easily understood that no sovereign State will be eager to take up the cause of a certain minority in another sovereign State as it will lay itself open to serious diplomatic complications. So that, the League of Nations has rarely been able (and I have studied the history for the last ten years) to afford justice on those fundamental rights to the minorities.

#### THE INDIAN PROBLEM

But the question of minorities is very different in this country. We are thinking, not of safeguarding religion, of safeguarding education, but of giving them a status, of making them co-operators in the task of government, of giving them that position where they will feel that they are dignified co-operators in the entire task of administration. It seems therefore that the policy of wisdom lies in recognising this fundamental difference between the minority problem in India where they all form part of one national whole; and the minorities problem of European countries where the minorities can never be absorbed into the nationality of the country.

## EQUALITY AND FRATERNITY

Democracy, as is well known, is founded on the triple slogan of liberty, equality and fraternity. Our emphasis as a subject nation, the emphasis of British India as a subject country, has necessarily been on the first of these essential constituents of democracy, and it has been rightly so; but the fact remains nevertheless that equality of opportunity and fraternity count as much; and that those who would build an edifice for India ought to bear this carefully in mind. That great politician and statesman whose triumph in the handling of the public affairs of his country has eclipsed his great name and fame as a political thinker and writer—President Masaryk of Zechoslovakia observes: 'Democracy is grounded upon humanity; it is the government of all, for all; not of rulers and ruled, but of an administration, self-government and the co-ordination of all state creative forces'. It is such co-ordination that is sought to be brought about by the representation of those specific minorities whose sense of apprehension makes them feel that they will have no place in the constructive task of the governance of the country except by special representation.

## A NATIONAL SOLUTION

I do not commit myself to the particular kind of representation that has been given according to the present proposals for such minorities. I am content to express my opinion that so long as apprehensions are really felt and justly entertained, it is the part of wisdom to remove such apprehensions by methods which may be neither ideal nor classic, but which will nevertheless be effective in promoting good will and thereby make for a consolidated and united nation. The solution of the question may not be of the ideal type, but the foundation for a more generous and tolerant attitude has been laid by the removal of that nervousness which some minorities have hitherto felt. Prophecy is dangerous in an age of flux. But in a country where tolerance has been claimed to be one of the great virtues of the past, one must realise that political bonds of affection are cemented not merely by bare legal enactments, but also by generous treatment of human questions.

Without in anywise being chauvinistic, one may state that in the new India, the approach to a perplexing question—the question of minorities—has been of a new and an essentially national character.

### III

#### RELATIVE POWERS OF THE TWO HOUSES

For an understanding of the relative powers of the two houses, one must remember the peculiar reasons for which a Senate or upper house has been designed, particularly in a federation. It has been pointed out already that the principle of State sovereignty and State individuality and distinctiveness, has been very largely responsible for the creation of a chamber in which States are represented as separate entities. Therefore, to a certain extent, a federal second chamber differs in intents and purposes from second chambers in unitary States. But even the originators of the first idea of a federal second chamber, the framers of the American constitution, admitted that such a chamber would do the same work that was expected of a revising chamber in a unitary State. Madison, one of the protagonists of the constitution of the U.S.A. in fact declared in clear and unmistakable terms the objects he had in proposing the constitution of such a second chamber. 'If the prime purpose of the American constitution was the establishment of liberty, and liberty meant the free development of various, diverse interests, then Madison foresaw that a clash of such interests was inevitable, and that the force and impact of that clash should, as far as possible, be mitigated by a second chamber. 'There will be creditors and debtors, farmers, merchants and manufacturers. There will be particularly the distinction of rich and poor' said Madison. 'We cannot however be regarded even at this time as one homogeneous mass, in which everything that affects a part will affect in the same manner the whole. In framing a system which we wish to last for ages, we should not lose sight of the change which ages will produce. An increase of population will of necessity increase the proportion of those who will labour under all the hardships of life and sigh for an equal distribution of its blessings. These must necessarily out-

number those who are placed above the feeling of indigence. According to the laws of suffrage, the power will slide into the hands of the farmer. No agrarian attempts have yet been made in this country, but symptoms of a lively spirit have sufficiently appeared in certain quarters to give notice of the future danger. How is the danger to be guarded against on republican principles? How is the danger of interested coalition to oppress the minorities to be guarded against—Among other means, by the establishment of a body in the government sufficiently respectable for its wisdom and virtue to aid in such emergencies the preponderance of justice by throwing its weight with the oppressed'. Holding these views naturally, the framers of the American constitution gave the State very wide powers. All legislative powers were vested equally in the Senate and the House of Representatives. All bills for raising revenue originated in the House of Representatives, but the Senate may propose or concur with amendments as on other bills. There were certain other special powers conferred on the Senate of the United States of America, such as the power to approve treaties made with foreign powers by the executive, and the power in some special cases of making appointments. It has been suggested that in the Indian federation, the same principle may be applied. The general view has been, that neither of the chambers of the federal legislature should be placed in a position of legal subordination to the other. The two chambers are intended to be complementary to each other, each representing somewhat different, but not necessarily antagonistic aspects of the federation as a whole. It was clearly realised that absolute equality between the two chambers of a bicameral legislature was no doubt unattainable, and if it was attainable, might well result in perpetual deadlock; and there was no doubt either, that notwithstanding the provisions of any constitution, the evolution of political development will inevitably result in course of time in placing the centre of gravity in one chamber. But so far as the actual provisions of the constitution are concerned, the conclusion was arrived at that there was no justification for endowing one chamber at the outset with legislative powers which are denied to the other. There will be no prohibition against bills emanating from either chamber,

against the power to amend or reject a bill, and the need for the acceptance of a measure by both chambers before it can become law. There was however one exception following the analogy of other countries—the right of initiating money bills vests in the lower chamber alone.

#### JURISDICTION OF LEGISLATURE

Having traced the relationship of the two houses of the Federal Legislature, I may shortly deal with those subjects of common concern which will fall within the competence and jurisdiction of the federal administration. Communications including railways, aircrafts and inland waterways, shipping and navigation, lighthouses, posts, telegraphs and trunk telephones and wireless institutions, customs and salt, currency and coinage, the public debt of federal India, commerce including banking and insurance, trading companies and other associations, geological and botanical survey of India, inventions, designs and copyright; emigration and immigration, the survey of India, meteorology, federal services and a few other subjects come within the purview of the federal legislature. With reference to some of them, it is provided that only policy and legislation should be federal; with reference to others, policy, legislation and administration would be federal. The distinction is important and carries with it far-reaching consequences. Where merely policy and legislation has been federalised, the States have agreed that the federal legislature shall dictate the policy to be applied and that the legislation passed on the subject shall be binding on all the States; but the administrative part in connection with those subjects will be exercised as at present by the States. So far as they continue to exercise those powers, they will do so in conformity with a policy jointly determined and with regulations jointly formulated. This distinction has been arrived at as a matter of necessity, and because the States desired that there should be the minimum amount of disturbance in the practical arrangements for administering the subjects in the States. As we shall see later in discussing the administrative arrangements of the federation, this attitude of the States involves special arrangements not altogether unique in federal

constitutions, even in relation to those subjects which are completely federal.

#### CENTRAL SUBJECTS

The enumeration of the subjects which have been federalised either wholly or for limited purposes, must bring home to any one that there are very important subjects of common concern to the whole of India which have not been included in the above list. Civil laws, criminal law and criminal procedure, have not been embodied in the list of federal subjects. The reason is obvious. The representatives of Indian States were found unwilling to extend or amplify the list of subjects that have been mentioned above, and in particular, did not agree to the federation making laws either regarding civil rights or criminal liabilities which will have automatic operation in their States. In practice, in some States, there is really no difference between the laws prevailing in British India on these subjects and the laws in such States. The Indian Penal Code has been applied *in toto* in most of the Indian States; so has the Code of Criminal Procedure found a place in the legislative system of many of the well-organized Indian States. Many of the civil laws have been bodily transposed into the statute-book of big and small Indian States. There have been rare instances of variation in these respects. But even so, there has not been found sufficient response from State delegates to the suggestion that these subjects should be made federal. What then should become of those subjects which are at least of common concern to British India?

#### PROVINCIAL OR CENTRAL SUBJECTS

There was one school of thought among British Indians which felt that subjects which were not federal should automatically become provincial subjects. Obsessed with the idea that provincial autonomy in the amplest form would somehow or other give great status and dignity to provincial areas, hankering for that sovereign status which according to old theories federating units normally possess before entering into the federation, there were some who insisted that such vital subjects as civil and criminal laws should be entirely left to the control of provincial legislatures.

Another school of thought, however, urged that great uniformity had been reached in the legislative development of the country by the fact that for over 70 years, a central agency had passed laws on subjects which affected the whole of the population in British India equally. The great codes, beginning with the Indian Penal Code for which that master mind Macaulay was mainly responsible, had brought about a state of uniformity in the country which it would be extremely unwise now to attempt to disintegrate in the name of provincial autonomy. The Code of Civil Procedure had given a certain amount of uniformity in the possession law administered in all parts of British India; the Transfer of Property Act had made it easy to recognise rights and liabilities with reference to the possession of property throughout British India which it would be absolutely fatal to destroy. The Indian Evidence Act had again given a system of assessing and evaluating evidence on a uniform basis in all courts of the land. The Criminal Procedure had similarly tried to set up common canons with reference to the trial of criminal cases. Such being the case, those decades of work entailing great labour which had produced this uniformity, should not be lightly done away with; and measures adopted which will bring about chaos in the application of civil and criminal laws in the country, would be a calamity according to some at least of the British Indian politicians.

#### THE NATURAL RESULT

These considerations inevitably led to a novel arrangement being proposed, an arrangement which it must be admitted, finds no parallel in constitutional precedents, but which again the peculiar conditions of India have obviously necessitated. A certain set of subjects had to be described as 'central' subjects as opposed to 'federal' subjects on the one hand and 'provincial' subjects on the other. These central subjects must be legislated upon by a central legislature which represented British India alone. That was the only way by which uniformity could be secured in those provinces which valued such uniformity and which were not inclined to give up the advantages thereof.

## THE CENTRAL LEGISLATURE

The question then arises how the central legislature is to be composed, and whether there ought to be, apart from elections to a federal legislature, a set of separate elections for a central legislature which will deal with these problems. One has only to state this alternative, to realise how cumbrous, costly and unnecessary such a double system of election would be. The more reasonable course would be to form the British Indian section of the federal legislature into a central legislature for the purpose of discussing subjects of common concern for British India alone, which may be detailed in a separate schedule and called 'Central' subjects. This is the expediency which has been accepted. One may refer, however, to two alternatives which were proposed but were found not acceptable to many British Indians. One was to allow these subjects to be discussed by the full federal legislature, and the laws on them would then be passed by the whole body, but their application would be limited only to British Indian provinces. This process was found not agreeable on the simple ground, that it would be not only anomalous but highly undesirable to give the power to a certain number of representatives in the legislature to share in making laws which would not be applicable to them. A second suggestion was to follow as closely as possible the analogy which now prevails in the House of Commons, when legislation relating to Scotland is taken up. Such legislation is generally referred to a committee called the Scottish Committee, which by convention is composed mostly of Scotch members of Parliament. After the proposed bill is examined by this committee, it is remitted for the consideration of the full house; but again by an un-written convention, the discussion is generally confined in the open house only to those members who are representatives of Scotland. It must however be conceded that in theory it is open to every member of the House to share in such legislation, and that in practice on more than one occasion, members who were neither Scotch nor represented Scottish constituencies have been known to take part in these measures.

The only alternative therefore is to apply what has been

termed the 'in and out' principle, whereby in matters relating to the central subjects, the State representatives will walk out, and will walk in again when federal subjects proper are taken up for consideration by the legislature.

A minor anomaly, perhaps inevitable, in this arrangement will be that if the President of the legislature happens to be a representative of one of the States, he will still continue to preside over the British Indian section of the legislature. Another anomaly, but of far greater significance, arises out of the composition and powers of the federal executive which we shall proceed to consider.

#### THE FEDERAL EXECUTIVE

We have seen that a federation involves a legislature, an executive and a judiciary. The legislature having laid down general rules and principles which must regulate the society, the executive seeks to apply those rules or principles in particular cases. The judiciary determines whether the executive, in exercising its power, follows the principles laid down by the legislature. Earlier constitutional writers like the French Montesquieu and the English Blackstone, emphasised the need for the separation of these three powers and the vesting of them in bodies mutually exclusive of each other. It stands to common sense that the man who makes laws, should not himself interpret them; and the person who gives orders should not himself be the judge as to whether those orders have been carried out properly or not. Montesquieu in his famous work says :

'When the legislative and executive powers are united in the same person or body, there can be no liberty because apprehensions may arise lest the same monarch or Senate should enact tyrannical laws and enforce them in a tyrannical manner. Were the power of judging joined with the legislator, the life and liberty of the subject would be exposed to arbitrary control, for the judge would then be the legislator. Were it joined to the executive power, the judge might behave with all the violence of an oppressor'.

The acceptance of these principles was understood at the time to involve a complete separation of personnel which can be vested with these various powers. If legislative and executive

functions were to be vested in different bodies, if the legislator should have no sort of connection with the administrator, the necessary corollary of a rigid adherence to this provision was the agreement which was arrived at in the federation of the United States. No member of the executive can form a member of the legislature. The executive in America is to be outside the legislature. The State Secretaries are not members of either house. They have no right to appear in those bodies, to support by argument bills which on their recommendation the President may send to the legislature for consideration, and to defend themselves against criticism in either house. The president himself, the supreme executive head of the United States, is outside the legislative system. He can only send messages to the Congress—messages which can be taken note of, or as in the very recent instance regarding the independence of the Phillipine Islands, completely ignored by the Congress. Madison, in his *Federalist*, not merely defends, but actively advocates this complete dissociation of the executive from the legislature on the principle laid down by Montesquieu and Blackstone. One may indeed wonder how the system can work in America. So far has been the advance in public opinion regarding the impossibility and undesirability of keeping the legislature and the executive absolutely separate entities. The fact is that the development of the party system in America, those huge forces which array themselves on either side in the Congress, the House of Representatives and the Senate, which support the President and executive chosen by him on the one hand, and oppose them on the other;—this party system forms the bridge between the legislature and the executive and tones down the harshness and often the impossibility of a position which arises on account of the strict and logical application of theoretical principles.

#### CONCURRENT POWERS

It has been found by all framers of later constitutions, that a parliamentary executive as opposed to the non-parliamentary and irremovable executive such as that which exists in the United States, combines in itself advantages of a peculiar kind, and really makes for the omnipotence of the

legislature. Where an executive is drawn from the parliament itself, is made responsible to parliament and is subject to removal from office by a vote of parliament, the danger foreseen by Montesquieu and Madison of a combination of the legislative and executive functions in one body does not seriously arise. It is perfectly true that under present conditions, there is often an overlapping of functions between the legislature, the executive and the judiciary. In some countries at least, the legislature sometimes acts as an executive, as when the American Senate is required to confirm the nominations of the President with respect to particular offices. In some cases it has in theory the power of adjudication like the House of Lords. The judiciary again does not merely adjudicate on laws made by the legislature. That well understood phrase 'judge made law' as opposed to codified law, accurately describes a feature of judicial administration involving the making of laws which is prevalent in most countries. Executives again have, under the growing stress of legislative business, been given larger powers in many countries of making laws. A busy parliament harassed by work which accumulates with ferocious rapidity and unable properly to discharge its functions if it were to deal with every meticulous detail of a proposed legislation, finds it convenient to draw up a set of broad principles and embody them in laws and leaves the greater bulk of detailed legislation to what has been termed the 'rule-making powers' of the executive. Into the protests that have been made from time to time on excessive rule-making powers of the executive and the objections to such large powers, we need not enter at present. This overlapping of functions necessitates, so far as executives are concerned at any rate, that they should form part of the legislature and be amenable to the control of the legislature.

The phrase 'responsible government' or 'responsible executive' merely means that the executive should have the confidence of the legislature. That confidence can only be enjoyed so long as the executive carries out the will of the legislature. The legislature therefore secures, by its control of the executive, the means whereby executive acts will be in conformity with the intentions of the legislature.

In suggesting an executive for an all-India federation, the proposal has been accepted of a system of parliamentary and removable executive responsible to the legislature, and acting on its advice and under its guidance. How far legislatures really control their executives, and how far they are in their turn guided by the executives, is a vast question which depends not on constitutional provisions but on the action and inter-action of personalities.

#### APPOINTMENT OF MINISTERS

A parliamentary executive is generally formed by the head of the administration—the King or his Viceroy—appointing the members. The question arose at a very early stage in considering an executive for the all-India Federation, as to how these appointments were to be made. There were, here again, unfortunately two views expressed—one which suggested that the Viceroy should have complete power to nominate individual members of the Cabinet; the other which insisted that the Viceroy should summon a Prime Minister, generally the leader of the dominant party or largest group in the legislature, and ask him to name his colleagues. The reason for the former view was the hope entertained by some that under such a system a representation of the different communities in the executive may be assured. This aspect of the question we may consider later; but it was at last generally agreed that the principle prevailing in the British Parliament of summoning a prime minister to form his cabinet should be acted upon. This raises the important issue of joint responsibility of the cabinet, which is the basis of the English cabinet system. Nothing has contributed more to the success of the party system or to the influence of a legislature than the doctrine of joint responsibility. If Ministers are isolated individuals, having no common purpose, acting under no definite programme which was equally binding on them all, chaos was bound to overtake the executive and ultimately the legislature. If instead of allowing a prime minister to choose his colleagues, either the head of the administration, as the Viceroy for instance in the case of India, chooses his colleagues, or the party dictates who his colleagues should be, it may well nigh be impossible

to get together a group of men who are of one mind, loyal to each other and to their chief, and act with one purpose in those high affairs of State which have been entrusted to their discretion. If individuals are sorted out either from a single party or from various groups and asked to form a cabinet, the process would really be reversed and joint policies will have to be formulated after the cabinet is brought together and individuals collected for the purpose. Such an arrangement will virtually mean the lowering of the prestige of the prime minister and his helplessness to adjust differences of opinion among his colleagues. Morley in his biography of Walpole describes the cabinet system of England as follows :—

‘The principal features of our system of Cabinet government to-day are four. The first is the doctrine of collective responsibility. The second mark is that the Cabinet is answerable immediately to the majority of the House of Commons and ultimately to the electors whose will creates that majority. Third, the cabinet is except under uncommon peculiar and transitory circumstances, selected exclusively from one party. Fourth, the prime minister is the keystone of the cabinet arch. Although in cabinet, all its members stand on an equal footing, speak with equal voice and on the rare occasions when a division is taken, are counted on the fraternal principle of one man, one vote, yet the head of the cabinet is *primus inter pares* and occupies a position of exceptional and peculiar superiority. The task of forming cabinet is one of the most difficult that any prime minister has to face at the start of his career. There are the various considerations which have to be borne in mind. Certain people must be rewarded for years of loyal party work. They have attended all conferences, divisions and committees, have spoken in every constituency, have never criticised leaders or given trouble to the whips. They must now be honoured or rewarded. One way out of the embarrassment is to give such men the compensation of a Baronetcy or Peerage. It is worth while remembering this consideration also when we deprecate the practice of conferring titles in this country. At the time of the formation of a cabinet, human nature being the same everywhere, there is most active interest evinced

and the most tremendous pressure brought to bear on the prime minister and on those who may advise him. The tadpoles and tapers who assume a peculiar importance in every country on such occasions are full of their frenetic advice. It was the Marquess of Salisbury who is reported to have said on one famous occasion when he had to form his cabinet, that the Carlton Club, the political club of the Conservatives, resembled nothing so much at the moment, as the zoological gardens at feeding time. The prime minister in fact is no Cæsar. He is not an unchallengeable oracle. His views are not final.'

In practice, the prime minister has not got virtually that freedom of choice which may be assured to him legally. It is the experience of every prime minister that at least with reference to some appointments, it is so obvious that he can have no alternative. In fact, cases are not wanting where a prime minister for reasons of State or of party, has been forced to choose a colleague whom, he for personal reasons, would well have avoided. There is the classic instance of Gladstone who chose Chamberlain as his colleague in the Cabinet, though there was not the most cordial feeling prevailing between them. There was the case of the Marquess of Salisbury as Prime Minister, choosing that erratic genius, Lord Randolph Churchill as his colleague and in fact giving him the key position of leader of the House of Commons. There are practical limitations imposed by such considerations as I have indicated above. But both in theory, and so far as the head of the State is concerned, in practice, the convention is well established in England and other parliamentary countries that the prime minister should have complete freedom of choice in calling together those members who will form his colleagues in the Cabinet.

In India particularly, the cabinet system based on joint responsibility is the only system that can work properly and carry out the ideals that we have in view in framing the constitution. It is more than possible, taking a bird's-eye view of present conditions, of the frame of the constitution and of the method of election to the legislature—that in the first few years at any rate, there will not be two clearly well defined parties in the federal legislature. There may be

groups, with all the disadvantages of group politics, with no clear cut divisions of opinion running horizontally, and in such a state of affairs, individuals picked from various groups by the Governor-General rather than by a prime minister, would find it extremely difficult to present a united front to the legislature and to carry through measures by the majority vote of the house. It is true that assumptions like the foregoing involve that the prime minister may not belong to that group which commands an absolute majority in the house. It will be his concern to see that individuals are selected from various groups, so that the total strength of the cabinet in the legislature will be sufficient to ensure the passage of all governmental legislation. But the important factor is that the individuals would all be persons who are more or less agreed on certain definite principles, and above all who are loyal to their chief. The principle of loyalty to a prime minister on the part of his colleagues, is of the very essence of joint responsibility of cabinets.

The relationship of the prime minister to the other members of his cabinet—the question whether he will have such personal ascendancy as to be able to carry his colleagues with him on essential questions of policy, do not relate really to the theory of politics, but are matters concerning the administration of cabinets. It is unnecessary to examine at any great length what the position of the future prime minister will be and of his colleagues. Much will depend upon personality; much more on that sense of joint discipline and loyalty which those chosen as colleagues will show; but of one fact we may be certain, that the Governor-General should choose one person as the prime minister and make him virtually responsible for the choice of his colleagues.

#### COMMUNAL REPRESENTATION

Let me now refer to a question which has occupied some considerable attention of the public mind and on which again various extravagant and conflicting claims have been advanced. It has been suggested that the cabinet should be representative of various communities. The history of

communal claims and of attempts at communal adjustments in India is well known. The Muslim Conference, in their now famous 14 points, suggested as one of the fundamentals of the constitution that it should be provided by statute if possible, that there should be a certain minimum number of Muslim ministers in the central cabinet. Other communities have advanced similar claims. The Sikhs have put forward a claim for their indefeasible right of having members of their community in the provincial cabinet and have latterly expanded that claim to a seat in the central government. Students of constitutional history must reject these claims without any hesitation if they are advanced as statutory or quasi-statutory rights. All that has been said about the theory of joint responsibility of cabinets and the freedom of choice that must be ensured to a prime minister forming his cabinet, militates directly against the position that such choice should be circumscribed by the necessary inclusion of individuals of certain communities, whatsoever their politics and policies may be. A cabinet formed on such compulsory lines cannot be sustained in office for any considerable time, and must break down by the sheer fact of its inappropriateness.

But these considerations are not arguments against a practice or a convention growing up whereby a prime minister turning his attention round and having regard to the principle of joint responsibility and the need of securing a united policy in the cabinet, still finds room for the inclusion of colleagues belonging to distinct communities of sufficient political importance. It would not only be possible, but it would in practice be extremely advisable, if a Hindu prime minister of the future federal government were to include in his cabinet Muslim and other members of important minority communities provided they held the same views politically as himself and belonged to the party with which he was associated. The task difficult as it may be, has been performed by various prime ministers of self-governing countries. The Dominion of Canada has been faced with the same problem not merely in the constitution of its cabinet, but also in the appointment to the leaders of the political party at Ottawa and at the Provincial Capital. Says a distinguished writer on the

government and politics of Canada, 'the new Premier' must also regard :—

- (i) the claims of French Canada
- (ii) the claims of the other eight provinces
- (iii) the claims of the English speaking population of Quebec and
- (iv) the claims of the Roman Catholic population of the Dominion that is not French.

Three cabinet or Ministerial offices are usually assigned to French Canada. The same number as a rule go to Ontario. At least one Cabinet office must, by usage, be assigned to each of the provinces of Nova Scotia, New Brunswick, Saskatchewan, Alberta, and British Columbia and since 1869, no Cabinet has been long without a representative of the English-speaking Roman Catholic Church'. In fact 'the distribution of Cabinet offices based on geographical considerations and on claims of race and religion and specially financial and material interests, is an innovation on the usage and traditions of the Cabinet at Westminster. The innovation has been developed by the differing conditions of Canada and the United Kingdom; by the operation of the federal principle and by the need for conciliating assertive interests, racial and religious.

A Canadian paper in an article on the subject says :

'Sir Wilfrid Laurier is not the only sinner. Practically every party leader in Canada managed Quebec, as Sir Wilfrid has managed that province. A little more than an equal division of the spoils of office, concession here and concession there to race and creed and there you have the statesmanship of Canadian Premier of both conservative and liberal stripe'.

While I am on this subject I may as well refer to the extent to which the principle of racial representation has been carried out in Canada. It is a rule that the offices of Speaker and Deputy Speaker can at no time be held by men of the same race. If the Speaker is a French Canadian, the Deputy Speaker, who is also Chairman of Committee, must be an English-speaking Canadian; for the rule of the house is that 'the member elected to serve as Deputy Speaker shall be required to have the full and practical knowledge of the language that is not of the Speaker for the time being'.

Porrit in his book on Canada says 'The clerkship and the assistant clerkship of the house and the offices of Sergeant at Arms and Deputy Sergeant at Arms all appointive as distinguishing from elective offices—are by usage, also similarly divided between the two races. Nearly all the offices, important and unimportant, connected with Parliament, with the Senate as well as with the House, are distributed in accordance with these rules or usages. A roll call of the staffs of the two Houses including even the boys in knickerbockers who act as pages, would contain the names of almost as many French Canadians as Canadians of British ancestry.' It may be suggested that considerations of population, of tax-paying capacity have to be borne in mind in making such appointments. 'Quebec today elects only 65 out of the 234 members of the House of Commons. Its population is not one-fourth of the population of the Dominion. Its contribution to Dominion revenues does not exceed one-sixth. But an equal division of offices of the Houses of Commons is regarded by Quebec as necessary to the preservation of its rights and privileges and so long as each political party, when it is in power, is dependent on support from French Canada, it will be nearly as difficult to ignore the claim of Quebec to these Parliamentary honours and offices as it would be to repeal the clause in the British North America Act, that safeguards the separate school system.'

There is nothing vicious therefore in having regard to considerations of community in the formation of a cabinet, but the over-riding principle must always and inevitably be that of joint responsibility, of one-ness of objects and of loyalty to the chief. In the federal executive apart from the claims of politically important communities, there is no doubt that pressure will be brought to bear on the prime minister to choose some members at least from what may be termed for this purpose the 'state block'. Such is the cabinet that I visualise in the future federal constitution.

#### ONE OR TWO GOVERNMENTS?

And now let me turn to an aspect of administration and legislation which I referred to earlier. It has been found that it was necessary to constitute a certain group of subjects as

central subjects which were to be subject to central legislation, that is, legislation by the British Indian section of the house. The question naturally arises as to how the administration of these subjects is to be carried on. Should there be a central government, apart from a federal government, as there has virtually been a central legislature apart from the federal legislature? Can two governments function even if it be possible for two legislatures to function separately in the manner indicated above? Those who know best the actual work of administration, will at once state that this is an impossibility. Legislation may be separated as affecting British India on the one hand and All-India on the other. But the administration of subjects cannot be so compartmentally divided. The inter-action of policies in administration is such that a division will be futile. One is therefore irresistibly driven to the conclusion that whatever may be done with reference to legislation, the government of the federation must be one, both for central subjects and for federal subjects. This conclusion takes note of the anomaly which has to be squarely faced and accepted—that in the administration of central subjects, a government composed both of State representatives and of British Indian representatives, will have a voice. It is true that there have been objections raised by British Indians against State representatives in the Government having a voice in the administration of purely British Indian subjects, when States have refused in any way to countenance interference by British India in the purely internal administration of States. The anomaly could not be got rid of, though its forces and extent may be minimised by the prime minister so distributing the subjects of administration to his colleagues as to avoid the authorisation of any minister drawn from the State representatives to deal directly with purely British Indian subjects.

#### VOTE OF CONFIDENCE

A further question of very great interest also arises out of these considerations. If the Government is defeated in the British Indian legislature on a matter relating to a British Indian or central subject, what is the position of the Government? Particularly, what will be its position if it is able

to get a vote of confidence in the whole federal house on a federal subject? The federal Government can claim that it possesses the confidence of the country and if the same government has ceased to possess the confidence of British India; if the Government were to resign on that ground, it would virtually mean that in the most important aspect of government—the turning out of a ministry—state representatives would have had no voice. These are difficulties which have to be faced and hence arises the most difficult of all questions—what should be the method whereby a cabinet could be held to have lost the confidence of the country?

#### RECENT PARLIAMENTARY PRACTICE

A study of recent parliamentary procedure in various countries brings out the fact that Cabinets are not turned out of office merely because there is an adverse vote passed on them in the legislature. In an earlier period of democratic constitutions, the theory of responsibility of the cabinet to the legislature was carried to such an extent that a defeat of the cabinet on any point in the legislature, was the occasion for arousing a rallying cry on the part of the opposition asking the ministry to resign. When Gladstone and Disraeli were alternately, the prime minister and the leader of the opposition in the Parliament, they acted on the principle that an adverse vote in the legislature inevitably led to their resignation. If a bill were introduced and any amendments were carried which were opposed by the Government, a constitutional crisis was supposed to have arisen; the further progress of the bill was stopped and the resignation of the ministry was in the hands of the Queen. This idea of the responsibility of the cabinet to Parliament has been vastly changed in recent years. It is a matter of common knowledge that in the two Parliaments wherein Mr. Ramsay MacDonald was the Prime Minister on behalf of the Labour Party, he repeatedly said that he will not vacate office except on a direct vote of censure or no-confidence. This tendency of ignoring adverse decisions of the legislature and continuing in office till it was felt that there was a real inclination on the part of the legislature to change the cabinet, has been growing during the last three decades, and has now firmly become

rooted in the English constitution. The question that we have therefore to examine is, how far in India the older principle can be applied and how far the new principle may be more practicable in carrying out the administration. After a great deal of consideration, it has been finally decided that the cabinet must vacate office on a direct vote of no-confidence passed by the legislature. This does not however mean that on other occasions the cabinet should not resign. It only means that the one occasion they must resign without any excuse, is on the occasion when a no-confidence motion has been passed by the legislature. Where a prime minister finds that though a no-confidence motion has not been passed against him and his colleagues, he is not in a position to get through legislative measures, or command a sufficient majority for ensuring the passage of those finance bills and other matters that are absolutely essential for his administration, it would be the height of folly on his part and he would find himself in the most undignified position, if he were to stick to office—an impotent and irresponsible and battered down prime minister. But the position is not left entirely to his choice. After all, there is the head of the State—the King, the President, or the Governor-General in India—who will take note of these expressions of want of sufficient confidence in a legislature and who has the power to call upon the minister to resign if he finds him utterly incapable of carrying through essential legislation in Parliament. It is true that the prime minister has got a right to advise the dissolution of parliament and normally in these matters the advice of the prime minister is binding on the head of the State. But occasionally—and the memoirs and letters of Queen Victoria have shown it conclusively—the head has got the right of either changing the minister or of dissolving the legislature, in spite of the contrary advice of the prime minister.

#### NO-CONFIDENCE

The next question that arises is how the direct vote of no-confidence should be passed by the legislature. In many countries it is the expression of the opinion of the popular chamber that is taken into consideration in this matter. An

adverse vote in the House of Commons means the resignation of the ministry, or the dissolution of the House. In India, an exception has been made. Many there will be who will criticise this exception and feel that one of the most valuable principles of the constitution has been unnecessarily violated thereby. But some at least of those who are responsible for suggesting and endorsing this exception stated that in an All-India federation of the kind just described, a reasonable stability of the ministry was important, and that the representation of State delegates, and the proportions in which they entered the two Houses, had an obvious and important bearing on the vote of no-confidence. After all, it has to be remembered that the constitution which is being framed on these democratic lines is for the biggest population ever known in history and that the affairs of a vast country are complex enough and vital in all conscience. Party alignments have not been sufficiently developed, though in course of time, one hopes that the normal working of democratic influence will bring that about. It is more than possible that in the first few years at least, group system will grow such as those one is accustomed to in France and Germany. And in that state of flux, repeated ministerial crises as those which have overtaken France and Germany cannot be faced in India. The fact that there is an elected President in both these countries, goes a long way in mitigating the serious inconveniences that are caused by the too frequent overthrow of ministries. A Foreign Minister from France, in the midst of his serious arguments at the tribunal of the League of Nations, is presented with a telegram stating that his Ministry has been thrown out of office, and he no longer enjoys the confidence of the legislature. He closes his speech and returns to Paris by the night train. What an obviously hopeless position for a person to face, for any ministry to face, particularly in international situations! Such were the considerations that led to an emphasis being laid on a reasonable amount of stability being guaranteed to the federal ministry in India. On the one hand, the danger of establishing an oligarchy or a clique which was incapable of removal, whatsoever be the forces arrayed against it and however strong public feeling may run counter to its existence—had to be

avoided. On the other, the manipulation of cliques, the formation of cabals, the joining together of ambitious individuals, more anxious to get into the seats of power than to integrate the just rights of their country and countrymen, may bring about the fall of ministries and so ruin the constitution and its progress. It was considered by many that a vote of no-confidence adopted at a joint session of the two Houses of the federal legislature by a majority of the strength of the two Houses, must result in the resignation of the ministry. This proposal has not been finally accepted, though one hopes that the advocates of a stable ministry would not, in their zeal, exceed this utmost limit. To those who feel that the principles of democracy have been negatived by such a proposal, one would like to say that '*Festina Lente*' is not an altogether inapplicable principle in politics.

#### RESIDUARY POWERS

There is a very important aspect of the division of functions between various legislatures which may now be adverted to. We have seen how subjects have been roughly classified into three groups, federal, central and provincial. The question has arisen as to what should be done with any matter that may arise outside this classification; and this raises the whole question of residuary powers of legislation. Where it has not been possible to allocate all the subjects between a federal legislature and the legislatures of federating units, because human ingenuity is not so far-reaching as to exhaust all possibilities that may arise at all times however remote, the expediency has been resorted to, of vesting either in the one legislature or in the other a specific power called 'the residuary power' which will enable that legislature to deal with the subject when such a contingency arose. The great fight that has been carried on at the time of the formation of various federations, whether the residuary power should be vested in the federal centre or in the units, is known to students of constitutional history. At the time of the very first federation—the American federation—owing to the circumstances under which the units were federating, giving up, as we saw, only specific powers to the federal centre, the question easily resolved itself, and residuary powers were vested

in the federating units—the sovereign units. The same happened when the Canadian federation was formed, but when the Australian federation was formed, a different course was adopted. By that time, the disadvantages of vesting residuary powers in federating units came to be more vividly realised. In the 18th century, functions of administration were few indeed, and even Madison and others did not realise the possibilities of subjects that may come on the horizon and which could not be dealt with by individual units. Scientific development, the discovery of steam as a force and even more of electricity, brought into existence problems which were never visualised by the American federalists; and for a time, the federal centre in the U. S. was in a state of paralysis. Telegraphs, wireless and many other subjects which have since come into existence, could not be legislated upon by every federating unit. And so, the opinion grew that residuary powers must really vest in the federal centre. In India unfortunately, the course of discussion took a different turn. What one would naturally have expected, as a subject which ought to be dealt purely on its merits and without any bias from communal or other considerations, occupied a very prominent place in the titles of communal politics. One group of British Indians asserted with vehemence that unless residuary powers were vested in the provinces, provincial autonomy will become a farce and the centre will ultimately extinguish all initiative in the provinces. Another set of British Indians equally unreasonably, if one may say so, laid the greatest emphasis on residuary powers being vested in the federal centre. Confusion became so confounded that men began to talk of residuary powers as if they were over-riding powers—powers which a centre can use at its will to direct provincial agencies to do what it liked. Nothing can really be further from the truth: residuary powers are more in the nature of emergency powers and powers which cannot be foreseen at the time, as necessary for use; and understood in that way, no question of over-riding the provincial legislature or government can possibly arise. Moreover the scientific study of administration has grown, and the division of subjects into federal and provincial, however difficult it might have been at one time, can be

done with a great deal more of accuracy at the present day, and exhaustiveness of the division can be assured to a certain extent. In such circumstances, if the utmost pains were taken in framing the schedule of federal, central and provincial subjects, the problem of residuary powers becomes much less important than it loomed at first sight. Even so, a section of British Indian opinion was not agreeable to residuary powers being vested in the centre. Ultimately, a compromise was suggested, which it is hoped will be accepted, that when any occasion arises, whether residuary powers should be used either by the centre or can more properly be used by the provinces and States, the Viceroy should decide which must be the proper forum for the proper use of such residuary powers, and thereafter that particular forum, the legislature and the connected administration will utilise those powers. This is very different from a suggestion which was made at least in one quarter that the Viceroy should use the residuary powers—a patently absurd suggestion—one which is unworkable in practice and utterly wrong in theory. The solution thus arrived at is not an ideal one, but one ventures to put it forward as a practical one in the vehemently divided state of opinion in which the country finds itself over this question.

#### IV

#### ADMINISTRATIVE FUNCTIONS.

The task of framing the constitution for a federation does not end with the division of legislative powers between the federal legislature and the legislatures of the federating units. The daily work of Government has to be carried on and the federal subjects administered in accordance with federal laws by an agency whose functions have to be clearly defined. The administration of a Federation is entrusted to the Executive. The word Executive is used in two different senses by constitutional writers—the political executive which forms the ministry and the administrative executive which is composed of what are termed the Civil Services. The Political Executive is in charge of laying down policy in accordance with the wishes of the legislatures; but ultimately it is the Civil

Service that carries out the policy both of the legislature and of the Cabinet. The administrative affairs of a country are wisely entrusted to a permanent body of Civil Servants who are assumed to have no political bias and act without any special predilection either to particular political principles or to individuals. That, at any rate, is the theory of the Civil Service whatever the fact and practice may be in different countries.

2. Different Federations have devised varying methods by which the execution of this work can be carried out. The simplest method is that adopted by the United States of America where the Federation has its own organization of federal services throughout the area of the Federation operating directly on the citizens, carrying out laws passed by the Congress under the orders of the Federal Executive. At the other extreme is the system which some Federations have adopted, according to which the Federal Government owns no services at all or has got a bare skeleton service for its purposes. The Germanic Federation of 1871 is an example of this latter type. Its laws were executed, its affairs were managed not by its own officers but by officers of the State Governments. It has been both expedient and advisable in several Federations to employ officers of the different federating units to discharge the duties of the Federation. Such officers take upon themselves the double task of being the executive of the Federation and of their own respective State Governments. The justification for this arrangement is twofold. In a sense it makes for efficiency and ensures cheapness in the cost of administration. To have a set of officers administering directly on behalf of Federal Government and another set on behalf of Provincial Governments will result in the creation of such a large number of posts that the country will feel smothered under the weight of the bureaucracy so created.

3. The question of how to arrange for this double administration is one of primary importance in a country like India. So far as British Indian Provinces are concerned, in the early days the Provincial Governments were merely the agents of the Central Government and the necessity did not therefore arise of having a separate set of officials working

on behalf of the Central Government in the Provinces. In some Departments no doubt such central services were maintained as from the nature of the functions, the work could not be entrusted to any one of the provincial services. The Railway Services and those of the Posts and Telegraphs Department are instances in point. But otherwise the administration of Central subjects was carried on by provincial agencies, officers of the Provincial Governments being under a liability on behalf of the Central Government to do such additional duties as the Central Government may impose on them. The work of the Customs Department, of the Income-tax and Salt Departments of the Central Government are instances in point. With the introduction of the Montagu-Chelmsford Reforms the tendency, which was already appearing, was emphasised for a complete separation of the agencies which carried out the work of the Central Government and of the Provincial Governments. Very early after the introduction of the reforms a separate income-tax service was formed solely and entirely under the control of the Central Government. Similarly the officers of the Salt department were separated from those of the Provincial Excise department and placed under the control of the Central Government. At the present moment in spite of the fact that Provincial Governments continue to be agents of the Central Government in respect of the non-transferred departments, practically all the services required by the Central Government form a separate organization under the control of that Government. The emphasis will increase in course of time when the Federation is formed for the separation of the agencies of these two governments and the conferment of autonomy to the provinces will almost inevitably lead to the same result. The question then arises whether it is really in the best interests of the country that such an exclusive organization should be set up with the result of a costly bureaucratic machinery and a burdensome and a too frequent operation of several sets of officers on the citizen. It has therefore been suggested that the Federal Government should have some power whereby it can ask Provincial Governments to direct their officers to carry out some of the duties of the Federal Government. The Provincial Governments would

then be under an obligation to employ their officials for the discharge of such functions as the Federal Government may require them to carry out on its behalf. But this conferment of powers on the Federal Government must have some limitations; otherwise a Provincial Government may find the best portion of its service employed in the task of discharging federal functions to the disadvantage and certainly the inconvenience of the autonomous Provincial Governments. A Federal Chancellor of Exchequer anxious to conserve the purse may devolve on provincial officers the whole burden of administration with the result that the Provincial Governments may have to appoint additional staff to carry out their own legitimate duties. Such a position would be unfair to the Provincial Government. The provision had therefore necessarily to be added that where additional staff was required to be maintained owing to the extent of the use by the Federal Government of the officers of the Provincial Government, the cost of such additional staff should be met by a grant or contribution by the Federal Government.

4. Having discussed the position with reference to the provinces it has next to be considered with reference to Indian States. At present there are a few departments of the Central Government which are administered in State areas directly by its own officers such as the Posts and Telegraphs and the Railway Departments. Such an arrangement will continue in the future Federation, and officials directly under the control of the Federal Government will operate in State areas for the purpose of functions relating to such departments. But the States refuse to have any extension of this arrangement in their areas. They do not want any officers directly appointed by the Federal Government to operate on the citizens of Indian States. The example of the Germanic Federation had a strong effect on the State delegation and they suggested that following that example the Federation should depend upon the officers of the State discharging such functions as may be necessary for the administration of Federal Subjects. The State Governments would in that case make themselves responsible for the carrying out of the wishes of the Federal Executive within their areas and in reference to the subjects which were under the control of

the Executive. And this arrangement was accepted as the most practical one for the time being.

5. There is, however, a further consideration that arises where in provinces you have officers of the Provincial Government carrying out the duties of the Federal Government or in States you have the Governments guaranteeing the performance of the work of the Federation through their officers. It is perfectly true that a State Government will have the administration of the Salt Act for instance or the excise duty on tobacco carried out by its own officers in its area. But the Federal Government has an interest in one aspect at least of such administration whatever the agency may be. It must be assured that certain canons of propriety are observed in the administration of these subjects, that certain tests laid down are properly fulfilled and that the rules and regulations formulated for the purpose are followed in the same manner throughout the area of the Federation. If there is a set of officials who are not appointed by the Federation, over whom the Federal Executive has no check, to whom it can issue no direct orders, an impasse may easily arise in the administration of any department. It follows therefore that the Federal Government should have in such cases the power to supervise the execution of its authority by these services. If the Federal Government must supervise the work of these officers either in States or in Provinces it must have power to send down from time to time or even continuously a certain number of Inspectors, Supervisors or Commissaries who will test the nature of the work carried on by these officials on behalf of the Federation and send reports to the Federal Executive. The appointment of such Commissaries or Supervisors necessarily raises the issue as to the extent of the power which they should possess. In a Provincial Government the actual work of administration of a Federal subject may be carried on by a subordinate official but he will be subject to control by a set of superiors each checking the work of the officer just below him. This regular hierarchy of officials is to be found both in provincial administrations and in those of most of the States. What place has then the Commissary in this astral system where the functions of each official are arranged with such delicacy

that there can be no disturbance to any one without disturbing the whole series in it? Can the Commissary acting on behalf of the Federal Government give direct orders to any officer occupying positions at various stages of this official pyramid? Difficulties abound, resulting from the dual control; conflicting orders and consequent confusion can be easily imagined if such interference were permitted. Even granting such a system of direct authority over the provincial executive officers may be agreed to in the provinces, State delegates again raised serious objections to such intervention. Following the Prussian example again they suggested that there should be no direct connection between the Federal Supervising Officers and the State agency or officers who carry out the administration. They wanted the least amount of disturbance in their system of Government.

6. Under such restrictions and limitations it is possible to visualise the position of a Supervisor appointed by the Federal Government. If the power to check, to advise, to find fault with and levy penalties are not given to a Commissary or Supervisor then at best he can only be a sort of informant on behalf of the Federal Government. He can send up his notes of inspection as to how things are going on in the various units from time to time and the rest will then remain with the Federal Government. What then should the Federal Government do? In the first place the State Government will be gently told by the Federal Executive that things are not being done in a proper manner in its area. The Laputan Flapper sitting by the side of his master occasionally flaps him with a little fan just to tell him that his gracious attention is invited to the matter on hand, and the Federal Government will play the part of a Laputan Flapper and gently remind the State concerned that the work of its officials on behalf of the Federal Government requires the earnest attention of the State. It is not an ideal arrangement but it is an arrangement with a precedent, however unsatisfactory and what is more an arrangement which the State delegates insisted upon.

7. The question has then to be faced how ultimately the wish of the Federal Government can be made to prevail. Constitutions have to be framed with an eye to all eventualities.

Stress may not be laid on one portion of it; one may glide over some provisions but the powers are still to be there capable of being used under certain circumstances. The State delegates again turned their attention to the Prussian model and asked themselves what was done when the Germanic Federation was formed. The question of the Executive of the Federal authority, as it has been termed by constitutional writers, though serious in implications has yet to be faced squarely. So far as Provinces are concerned a Federal Government would directly convey to the Provincial Governments their sense of dissatisfaction at what was going on and place before them the Federal requirements. But the State Governments were not situated in the same manner. They had in them a personnel peculiarly sensitive to orders from above. I am not referring at present to orders which the Foreign and Political Department may give to any State. State delegates therefore said that in case the Federal Government felt that any particular subject was not being properly administered a hint should be conveyed to the State authorities through the Viceroy who would be obviously acting on the advice of his responsible ministers. The Viceroy therefore would be the authority who will convey this suggestion. But granting all this is done and yet there is no improvement in the situation, what then? The Constitution will probably provide that the Viceroy in that case will execute the order on behalf of the Federal Government. What does that mean? Let us look again at the Germanic Federation. That Federation and the *Bundesrat* could decide disputes which may arise in such matters between the federating units and the Federal Government and if its decision went against the federating units, the Kaiser will execute the decision of the *Bundesrat*. What was the meaning of this provision? Even those who frame constitutions do not want to put in cold ink the ideas that they really wish to convey. The Kaiser according to the constitution was the Commander-in-Chief of the military forces of the Germanic Empire. The Kaiser's execution meant in the last resort a mobilization of all those forces against any particular State which did not carry out the wishes of the Federal Government. It is unmistakably clear however much language may conceal the idea so as not to

wound the susceptibilities of those Princes who were in charge of the federating States of the German Empire. They have interpreted that the execution by the Kaiser meant in the ultimate resort the using of the forces which were under the control of the Kaiser.

7. The Viceroy is exactly in the same position in India. Defence for the time being though a Federal subject is intended to be in charge of the Viceroy, the Crown being directly responsible for the administration of the subject. The Viceroy is the Commander-in-Chief of all the armed forces in India and the entrustment to the Viceroy of the execution of these orders means that, in the ultimate resort, the Viceroy will have the power of the armed forces behind him to see that either an erring State or a recalcitrant province is brought to book if it does not carry out the Federal Government's orders. These are the various methods by which it has been suggested that the administrative functions should be divided between the Federation and the federating units and the work of the Federal Government carried on.

#### FEDERAL FINANCE

I would like now to turn to another problem of Federation, a problem which has given cause for a great deal of anxiety to every one who has tried to solve it satisfactorily. The establishment of a Federation implies the setting up of a costly institution, an Upper Chamber and a Lower Chamber, the Federal Executive, a Federal Civil Service of no mean dimensions and all the huge paraphernalia necessary in any form of democratic Government. And here I should like to point out that no democracy has proved to be a cheap institution. If one wants cheapness, light taxes and as little interference as possible by the State, it must be found in other forms of Government rather than in Democracy. But though Democracy is to be heavily paid for, its advantages are in the opinion of the best minds so great that they outweigh the obvious disadvantage of cost. To carry on the Government in consonance with public opinion is ultimately far the cheapest method, taking political and economic factors together into consideration.

One of the fundamental issues which have to be faced when a Federation is started is how its functions are to be carried on; what are its resources and what are its requirements. Is there just that little difference between the cost of administration and its resources, between the income and expenditure of the Federation, that which Mr. Micawber so lamentably missed all his life—the little sixpence—that may make all the difference between a solvent and an insolvent State. The problem of finance is a vital problem connected with the management of any State, and to-day when the world is in the jaws of an economic crisis of the most unparalleled character, none can gainsay the fact that finance is the very life-breath of Nations and of Governments. What then are the financial proposals with reference to an Indian Federation? The problem of allocating sources of revenue to the Federation and the Federating Units has always been surrounded with great difficulties both from the conflicting nature of the interests involved and from the limitation of the resources to be availed of. The United States of America in those early days when the Federation was formed was not faced with the same amount of difficulty as now presents itself in a modern Federation. As Seligman points out the Federal Government was not seriously embarrassed in the choice of revenue by any consideration affecting State finance. The fathers of the constitution decided that the Federal Government should have unlimited powers of taxation both direct and indirect but that the direct taxes levied by the Federation should be apportioned to the States according to their population. There is no specific allocation of resources between the Federal Government and the States except that import and excise duties are reserved to the former. In theory the States could also levy excises but owing to a special provision in the American constitution that uniformity should be observed in the levy of these duties among all the States, no State has been able to avail itself of this power. The Federal Government could also levy direct taxes but as already stated the benefit of these taxes should be distributed among all the Units. The Federation was thus only an agency for collection; it had not the power of utilizing the revenues so obtained. The American

Federation relies mainly on its customs and excise duties, an item of revenue which has steadily grown since the Civil War and which in the last years of the 19th century formed the main resource of the Federation. From 1896 to 1910, forty per cent of the ordinary expenditure of the Federal Government was covered by the receipts from the excise revenue. Income-tax and inheritance taxes were levied during the Civil War and were then regarded as indirect taxes. In 1872 they were repealed when similar war taxes were removed. But in 1894 when the same income-tax was relevied after a commercial crisis, the Judges of the Supreme Court held that it was a direct tax and that therefore it was unconstitutional to impose the tax for the purpose of the Federation. In 1909 the Federal Corporation Tax—that is a tax on corporate income—was imposed as a special excise tax for the benefit of the Federation. On an appeal to the Supreme Court, the Supreme Court realising the difficulties of the Federal Government held that it was not a direct tax but it was really a tax on the privilege of conducting business in a corporate form—thus showing that after all, notwithstanding everything that may be claimed for the unbiased nature of judicial administration, judges are human beings living in and among the community affected by the laws and in the interpretation of those laws they wisely take note of existing conditions. This constant fight over direct and indirect taxation in America was finally settled by an amendment of the constitution in 1913. The 16th amendment repeals the apportionment clause of the constitution and thereby empowers the Federal Government to use the resources of any tax direct or indirect for its own purpose. But the States have all the powers with the Federation. There is a Federal inheritance tax and a State inheritance tax, a Federal income-tax and a State income-tax and 13 States are competing with the Federal Government in the domain of taxation. This double levy of taxation on incomes, legacies and corporation is bound to cause vexation and hardship to the tax-payers.

In the old Germanic Federation on the other hand there were only a few taxes allotted to the Federation. The Empire had the sole right of legislation in all affairs relating to custom and in the taxation of salt, tobacco, beer, spirit and

sugar. The Federation was also empowered to levy direct taxes, though it did not avail itself of this power till a very late stage of its development. The amount however was distributed in certain proportions between the Federation and the States. A special feature of the financial system of the Germanic Federation was the statutory obligation cast on the States to make contributions under certain circumstances.

We may now briefly examine the system of taxation in two British Dominions, Canada and Australia. The British North America Act of 1867 gave the Dominion of Canada, the Federal Government, very wide fiscal powers. Under Section 91 the Parliament of Canada was authorised to legislate upon 'the raising of money by any mode or system of taxation'. In actual practice however, customs and excise duties were the main sources of revenue of the Dominion Government. Since the Great War the needs of the Federation have so grown that many kinds of war taxes have been imposed. They include, taxes on banks, insurance companies, and other corporations, a business profits tax, income-tax and stamp duties. Levied as emergency taxes during the War, they now form permanent features of the fiscal system.

The Constitution Act gave power to the provinces to levy direct taxes but till very recently no Provincial Government was able to utilise the power owing to the unpopularity of such taxes. The chief characteristic of provincial finance in Canada is the system of subsidies or grants from the centre. Under Section 118 a grant fixed by statute is payable to Ontario, Quebec, Nova Scotia and New Brunswick. Besides these amounts an annual grant in aid of each province shall be made at a certain amount per head of the population. These provisions have been since amended but the principle and the contributions continue. It is needless to comment on the disadvantages arising out of such a system. Let one of the Finance ministers of the Dominion, the Honourable George Foster, give his impressions: "The provinces have mostly fixed revenues, pretty well-defined, and not very elastic. For increase beyond these, they can resort to forms of direct taxation, a proceeding which is unpopular and might be dangerous to party managers. The tendency, therefore is to constantly press upon the Federal Government for adjustment

and additional allowances. To spend money extravagantly in the provinces and for largely party reasons with the distant hope that eventually the Dominion Government can be persuaded and forced to come to the rescue, is not an unknown contingency and constitutes an element of menace to the stability of the confederation itself."

In Australia, the Commonwealth possesses full powers of taxation, both direct and indirect. The only limitation of Parliament is that it cannot discriminate between States or parts of States. The Federation has exclusive jurisdiction so far as customs and excise duties are concerned. The Federating States possess concurrent powers of taxation except as regards customs and excise duties.

Under Section 87 of the Act, for the first ten years the major portion of the customs duties were credited to the States and until uniform rates of customs duties were imposed the net proceeds had to be handed over to the States. The share of each State in the customs receipts was calculated according to the goods consumed in that State.

Since 1910 the Commonwealth has been imposing direct taxes and these taxes have grown in numbers since the War. A land tax, an income-tax, a war profit tax and an entertainment tax have all been imposed. The States derived their main revenue from commercial undertakings like the Railways and Tramways. But latterly they have also imposed direct taxes such as income-tax, probate duties, company tax and amusements tax. This process of double taxation resulting from concurrent jurisdiction has caused great dissatisfaction and annoyance to the citizens. A series of conferences has been held to remedy this state of affairs and attempts have been made to have only one agency for collection of income-tax. It is realised that the great need of the Federation is an agency for financial co-ordination and the Australian Loans Council established to act as the central borrowing authority is a step in the right direction.

There are thus various systems of federal finance each intended to give enough to the federation, and yet provide enough also for the federating units. Two requirements are essential when you discuss this question—the solvency of the federation must be assured, and if possible the solvency of

the States also must be ensured. A federation cannot run away with its powers of taxation and leave the States to manage their affairs as best they can. Nor can States aggrandize to themselves all powers of taxation, leaving the federation wholly in the air. There are some (and even academicians are divided on the subject) who will put all the emphasis on the solvency of a federating unit. There are others who would emphasise, and in my opinion, quite rightly, the solvency of the federal centre, because the federal centre represents the dignity, the authority and majesty of the whole nation and the country to the outside world. The federating units are after all smaller areas and small governments. But then, say the advocates who stress too much the solvency of the federating units, in the schedule of subjects which are under the administration of the federation, it is obvious that there are not many subjects of national concern : what have been termed the 'nation-building' subjects (that delectable phrase which has been of great advantage to many people at times of crisis when they could not put forward a better argument to substantiate their case) the nation-building subjects are being given over to provincial administrations. The spread of education, the spread of agencies which will combat disease, dirt and unhealthy conditions, and all else which goes to form the backbone of the nation—these matters have after all been given to the provinces. And the advocates of provincial sound finance therefore say that here lies the life-blood of the nation, and it is here that you must take care to see that the government is properly maintained. Not only that; the prejudices which have grown up owing to years of irresponsible government at the centre of India, have had not a little to do in emphasising this attitude of the advocates of provincial finance. The Military is a burden which the centre is carrying on from year to year, and is unparalleled in the extent to which the resources of the country have been called upon to meet this burden; they do not care what happens to the Central Government, because at the best or at the worst, it will merely mean a reduction of the military expenditure, and that is exactly what every one has been asking for. A forced depletion of the resources of a federation, an apparently insolvent federation,

is in their opinion not merely a perfectly legitimate thing, but perhaps the best thing that might happen, if the military budget is to be cut down. And, they argue, the military budget could never have been cut down from 52 crores which it was requiring just a few years back, to 47 crores, the present amount, but for the economic blizzard, but for the pressure on the Government of India through lack of adequate resources, to cut down that expenditure. If to-day the military expenditure could be cut down by 5 or 6 crores, they argue, it could have been done all along: there was no justification for this expenditure, and nothing but the necessity of circumstances which the Government of India cannot control, will make for this reduction in the military expenditure.

I do not agree with these advocates. I do feel that the solvency of the federation should be assured, and should not be left to hazy conditions; by all means, let us insist on the cutting down of our military expenditure; but let us also realise that a Federal Government must have resources of its own, and must be able to balance its budget.

Let me now turn to Indian conditions. At the very outset there are limitations to any proposals with reference to the schedule of taxation between the federation and the provincial units, limitations which were imposed by the fact that the State delegates had to concur in including certain taxes in either the one schedule or the other. I want those who criticise the proposals to remember this essential condition.

What is the position with reference to federal finance? The State delegates said that they were agreeable to include in the schedule of federal taxes only indirect taxes and not any of the direct taxes; they will not have the operation in their areas of any direct tax. In particular they refused to allow the income-tax to be levied in their areas. It has been found from the experience of federations that some sort of expansive direct tax is absolutely essential to a federation. But as against that proved theory, ascertained by facts and experience, we came against this dead wall, that the State delegates refused to have any direct tax imposed in their areas. In the first and second attempts at the R.T.C., they would not budge an inch. Gradually they were able to be

persuaded. It was suggested that income-tax may be divided into two categories—there was the personal income-tax, tax against the person who had a certain amount of income—and there was what was termed the “corporation tax”—tax on the profits derived by business concerns. And we suggested that even though you may leave out the personal income as necessitating a scrutiny of the income and expenditure of an individual and therefore an exhaustive analysis of the position which that individual occupied in society, the “corporation tax” in the States may be levied by the Federal Government. In the collection of personal income-tax, you must know the life of the people among whom you collect; you must have sources of information and you must be able to watch the men’s activities. State authorities said that if that was to be done by federal officers, it involved an amount of scrutiny of the life of the citizen that it was not in keeping with the ideals they had. Whatever other reasons may be, this fact was clear, that they would not agree to the levying of an income-tax in their areas by the Federal Government. But the same objection may not hold good with reference to the corporation tax or companies tax. There was another reason why we should insist that at least the companies tax should become a federal tax, in operation both in States and British India. What would happen if a companies tax were to be levied in British India and not in the States? Why, the veriest dullard among merchants will tell you that the result will be the company will be removed from British India to State areas. Men naturally like to escape the burden of taxes. So that, if the Corporation tax were purely to be a British Indian tax, ultimately there will come about a day when the entire factories and other trading concerns in British India will disappear from this area and will go to State areas and be established there. This practice has been going on even during the last few years. Those who have watched the removal of companies and of factories from Bombay and neighbouring areas to Baroda and other States in Kathiawar, have noticed this process and have congratulated the merchants concerned on their acuteness in realising the position earlier than the Income-tax Department of the Government of India. Therefore, not merely because of this reason, but on

various other grounds the corporation tax must as a permanent measure form one of the federal taxes; and it has been, ultimately accepted as a permanent tax.

The other taxes that they agreed to, were the indirect taxes—customs, excise and salt. There are two new duties proposed to be levied to which the States have agreed: an excise duty on tobacco and an excise duty on matches. You know the difference between a customs duty and an excise duty. An excise duty is a duty either on raw or manufactured products of the country itself, as against a customs duty or a duty which is levied on products imported into the country. These two additional sources of taxation the States have agreed to in addition to those sources of revenue which are now being collected as "indirect taxes" by the British Indian Government and in which the States have all along claimed their right share.

This classification leads us to one consideration. After all, the Federal Government, must be a solvent Government. You know the sources of income and you know the items of expenditure. The expenditure of the Government of India, whether the States join or do not join, is fairly ascertained on the present basis. It may vary slightly from year to year, but you can take it that what it is now incurring is more or less what it will have to incur a couple of years hence. The resources of the Government of India at the present moment include the revenue from income-tax. Income-tax gives us a net income of  $17\frac{1}{2}$  crores. If the corporation tax is made a federal tax, that would go to the federal purse; it amounts to  $5\frac{1}{4}$  crores. If that is all that is to be given to the federal centre, then you have a balance of 12 crores from income-tax which is now a source of revenue to the Central Government and which, because income-tax is not a Federal subject, must necessarily go to the provinces. A difficulty which had to be faced, an anomaly which must be got over arises on these facts. The ideal system and the only just system is that in a federation all federating units bear the burden equally. If therefore income-tax could not be made a federal source of revenue, because States cannot bear that burden, you cannot provide that income-tax collected from British India alone should go to the coffers of the Federal Government. Provincial

representatives very strongly objected to any portion of the "personal income-tax" of  $12\frac{1}{2}$  crores being given to the federal fisc. What can be done with it? They urged that it ought to return to the provinces. That was the only way by which justice could be done between the units and the Federal Government; and as a permanent measure, in spite of the recommendations of the Percy Committee which said that no definite period of years can be fixed—it has been agreed, generally speaking, that after a period of  $x$  years, which I shall refer to presently, this income-tax should become a purely provincial source of revenue. But income-tax is a thing whose incidence must be uniform and of the same degree throughout British India. It cannot vary from province to province. It must therefore be regulated by a common source, a common authority, and therefore the proposition was carried that while the proceeds will be distributed to the provinces, legislation with reference to alteration of the rates of income-tax should be a central subject, the legislation being passed by the central legislature. Similarly so far as administration of the subject is concerned, it must be by rules and regulations framed in common and administered by central officers, because in the collection of income-tax, as much depends upon the methods of assessment as upon the law on the subject. In fact, to many individuals, the methods of assessment are more important than the law.

Supposing, with this classification of sources of revenue you are faced with a deficit in the Central Government, who should bear it? The State delegates said, "supposing there is a deficit, a permanent deficit of a certain magnitude, and a temporary deficit at least for a period of years; there are certain liabilities which the Central Government has contracted and which it is not fair that the Federal Government should undertake." That raises the question of the pre-federation debt of India. When a federation is formed, and when federal units come into it, whatever loan is raised, is raised on the guarantee of the revenues of the Federal Government and the burden will have to be borne by the entire Federal Government and by the resources of the Federal Government. But the debt which British India has already contracted, must be discharged by British India; the service of that debt

had to be met and interest charges had to be provided by British India. At present the Government of India has a debt approximately of 1125 crores. Let us not run away with the impression that it is a dead weight debt. I myself believe that no government at present is faced with a better position so far as its debt is concerned than the Government of India. You look at the thousands of millions which have been contracted in Great Britain, in America and in other countries like France and Germany; and compare it with our position, and you will find that we have nothing to be anxious about so far as our debt position is concerned. Most of the debt has been spent on the construction of railways and railways yield handsome profits which cover not merely the interest charges, but give something for the coffers of the public revenue. They have again been spent on irrigation—and whatever may happen to the Mettur Project—the great irrigation schemes are paying. They have again been spent on several of the remunerative enterprises and the profits will cover the interest charges. It has been calculated that out of this 1125 crores, 1006 crores are of this kind. An amount of 119 crores is not covered by any remunerative returns. That is to say the interest on this 119 crores is not met from remunerative enterprises; and therefore I have ventured to repeat that the debt position of the Government of India is stronger than that of any other country. The State delegates asked why they should take over the burden of this debt. The Percy Committee examined this question and it came to the conclusion with the concurrence of two at least of the State delegates, who afterwards repudiated it, that the assets of the Government of India are such that the whole of them is covered; that the revenues or remuneration derived will meet the interest charges; that this 119 crores is no doubt covered in that direct way; but that there are assets of the Government of India which are worth more than this 119 crores; many of it is in the form of Government property—that is to say various buildings, military lands etc. They are assets whose value more than covers this 119 crores and therefore they came to the conclusion that every pie of this pre-Federation debt has been covered and when a new partner comes in, he can take it, because the assets and liabilities

will cancel each other. We thought that the question had been solved, but a new position was created at the 3rd R.T.C. The State delegates had consulted some economic experts in the meanwhile and the result was this. They made a distinction between the value of the assets being equal to the liabilities, and between the debt service being covered for the purpose—that is to say—they said it is perfectly true that the assets are of such value that they more than cover the capital of the debt of 119 crores; but only with reference to this amount there is no return coming to meet the interest charges.

Ultimately however, the State delegates said: 'you start with this  $5\frac{1}{2}$  crores which you call "corporation tax".' At present States have no corporation tax, so that essentially it will be a British Indian tax; but this is not enough; increase it as a permanent measure at least to  $8\frac{1}{2}$  crores by taking something from the income-tax, because then we will say this pre-federation debt charges will be covered by the  $8\frac{1}{2}$  crores. There, without coming to a conclusion, we left the question. What that arbitrary decision will be, whether it will lean on this side or that, I am unable to forecast at present, but I rather suspect that following the usual method, somewhere between the two extremes will lie the golden mean. I have tried to tell you these difficulties so that you may appreciate the reason why pure theoretical considerations have not been vigorously applied and compromises have been made from time to time.

But the position did not end there. I said that on the basis of a purely personal income-tax, 12 crores would go back to the provinces, but the Government of India cannot afford to lose all those 12 crores. It required immediately some amount at least; it could give up probably 5 or 6 crores, but it still requires 5 or 6 crores; and the State delegates again came in with their theory. They said: "We are coming into a federation, but we will not come into partnership with an insolvent partner. You set your house in order; you have a balanced budget, and then we will come and join you; and if after that, there is any sort of deficit, we will hold ourselves responsible along with you to make up the deficit. But you show us that your business is yielding profits or at any rate is not insolvent, and then we will join the concern". The

anxiety on the British Indian side was that whatever may be said about provincial autonomy, and however much they may desire to give financial help to the provinces, so far as the Central Government was concerned, they dare not leave it in a position of flux. They must see that the central budget was balanced and therefore they said that for a period of years, they were prepared to contribute from this personal income-tax; to give the federation a chance to see that additional sources of revenue were developed, and, after that, take back that amount. To-day we want 5 crores. The Federation is started. Let us take it that we should get these five crores as a contribution from provinces, if we choose to call it that. This will be fixed for a certain number of years; at the end of  $x$  years the federation will be under an obligation to give up these five or six crores. During the period of this  $x$  years, the finance Minister and the whole Federal Government will develop all their sources of revenue; will expand the existing resources and will probably also try to raise the excise duty on tobacco and matches that I have mentioned. And therefore we had to compromise on this. Neither the amount could be agreed upon; nor the period of years— $x$  amount for  $y$  years. At the end of  $y$  years, the  $x$  amount will automatically go; but in the meantime also if Federal resources developed, if the economic crisis has passed over, if customs revenue increases, then to the extent there is a surplus, the contribution of the Provincial Governments will be remitted.

There is also another important consideration. If in spite of the revenue that you can raise and the expanding nature of it, in spite of this  $x$  amount for  $y$  years, you come across a year where there is a deficit, What will you do? Then, they said, the States and Provinces must agree to a contribution being levied from them to cover this deficit. That contribution can only be levied on them after all the resources of the Government are exhausted, after the salt tax has been increased and after the highest tariff wall has been raised. But so far as the provinces are concerned, that contribution has taken a peculiar form. The income-tax is a provincial source; but the Federal Government has the power to levy a surcharge on whatever rate of income-tax prevails; and it is by a surcharge that the Federal Government will collect

what it requires from the provinces. The income-tax resources being known, the surcharge necessary to be levied is also known, and that amount will be levied. A proportionate amount will have to be collected from the States. The States therefore will be asked on the basis of population to contribute from each of their units a proportionate amount. The proportion of British India to Indian States being 76:24; in a population of 100, if 76 rupees are raised from British India, 24 will be raised from Indian States. How is it to be allocated? Presumably on the population of the various States—that is the proposal of the Percy Committee, a proposal which still holds the field.

But there is another occasion which may arise. An emergency, an economic catastrophe may develop when customs revenue tumbles down, when other sources of revenue fall, so far as the Federal Government is concerned. What is it to do? You cannot levy a surcharge on income-tax; you may not find it possible; incomes may have fallen. Here again a contribution from British India and States has to be made. So far as the Provinces are concerned, they are in a position to show a clear budget, that is to say, an ascertained and ascertainable budget of income and expenditure; and their contribution will be a percentage of their gross revenue. So far as the States are concerned, proportionate allocation will apply. It will be a certain amount based on the strength of the population as compared with British India.

These are some of the ways by which emergency contributions and special contributions can be raised from various federating units by the federal government. I realise that so long as the Government of India or the Federal Government depends on the resource of customs revenue (which is so high—even in the present year, it is very nearly 50 crores out of a total of 85) it is very risky. It has happened in other countries; it will happen in India also. You follow the policy of protection; you try to build up a high tariff wall; you do not want cotton goods to enter the country; you do not want sugar to enter the country; you do not want various other articles which you can produce, to enter the country. All these things will mean that the law of diminishing returns will begin to operate. It is not worth while sending

those goods into your country; the tariff wall may be so high that products may be unable to cross over that wall and enter the country. The customs revenue will tumble down. What is to happen? There has been one proposal made—a countervailing excise duty. To the extent to which these articles cannot come into the country, to that extent your own articles are developed. If Lancashire cotton goods and Japanese artificial silk cannot enter the country, it does not mean that the want of them has become restricted; but it means that Ahmedabad and Bombay are profiteering. There is an obvious remedy. You levy a duty on the manufacture of your own products. We had quite recently a countervailing cotton excise duty. It was unjustifiable at the time. But when you have built up a high tariff wall, protected your industries, made them earn, which they were not capable of doing before, when you have done all that, it seems that it is only fair that when the State is beginning to lose because of the advantage that it has given to the individual, it shall be in a position to recoup its position by alternative means. It may be on cotton; it may be on sugar. And here let me divert to a cognate issue. There is a boom in sugar to-day. In the U.P. sugar factories have been established in various places. In the Mahratta country, the same process is going on. Belgaum is going to have a sugar factory. In South India the craze may come very soon. There is one characteristic of the Indian; if anybody succeeds in an enterprise, everyone will rush in till at last the very weight of numbers has crushed the enterprise and brought about ruin to all. How that is going to be regulated, what provisions may be made by the Provincial Governments or the Federal Government to check that line of advance—how an extreme provincial frame of mind with reference to the starting of industries may bring ruin—I shall leave to economic professors to think over. But I see the danger ahead. I say that this extreme provincialism, that this idea of having a paper mill or a sugar factory in every district, irrespective of the economic scope of these things, is a very real danger which we ought to face.

These are the various ways in which some at least of the problems of federal finance have been dealt with.

## V.

## THE FEDERAL COURT.

I shall now turn my attention to the third constituent of a federation—a Federal Court. In every federation, it is necessary to establish a judicial body for one supreme reason. By the very fact that States have come together on an agreed basis and have agreed to surrender a certain portion of their sovereign powers, for the exercise by a central agency, of those powers, it follows that all attempts at settling disputes which may arise in connection with those powers which have been surrendered, must preclude the possibility of civil resistance or of civil war. If two individuals do not agree together in a state of affairs, and in a country where there is no judicial body to adjust the difference and where there are no arbitrators available also, there is only one means by which that dispute can be settled. The two individuals must settle it by trial of strength. Now a federation implies an agreed association of the various federating units, and if disputes arise between the federation and any of those units, or between two units of the federation, the arbitration of forces being ruled out *ex hypothesi*, there must be some body vested with the power of deciding and of adjudicating on these disputes. The necessity therefore of a Supreme Court, as it has been called, or of a Federal Court is absolute in a federation; and there has been no instance of a federation which has not in some form or other a supreme court. It is true that in the North Germanic Federation of 1871, there was not a Supreme Court in that federation; but the *Bundesrat* or the second chamber—the association of the State representatives—functioned practically as a judicial body. At any rate, whether it was very judicial in its decisions or not, it took upon itself the task of doing that which a judicial body would otherwise have done. The criticism against the *Bundesrat* and its decisions are well known to every student of constitutional history. Being composed of the representatives of various States, it necessarily had on its body, the judicial body, the representatives of the erring States also. If there was a dispute between two States, the matter was referred to

the *Bundesrat*, which according to the constitution was composed of representatives of all the States including the representatives of the two States that were at dispute—so that its decisions were to a certain extent vitiated. The decisions of the *Bundesrat* were not judicial decisions but merely decisions dictated by expediency. Above all, the fact that some States were mighty and powerful like Prussia, made it impossible for the *Bundesrat* to give decisions against such mighty States in the same exactness of manner and with the same fairness and impartiality, as it would in the case of a small and comparatively negligible State. Apart from this exception, federations almost invariably have provided for a Federal or Supreme court to adjudicate on disputes between States *inter se* or between the federation and any of the States. In an all-India federation also, the necessity for a supreme or federal court was recognised by everybody. There have been differences of opinion on the issue whether a supreme court which will hear ordinary appeals from the present High Courts, thus replacing the Privy Council, should be established or not. But, there was complete agreement between the State delegates and the British Indian delegates for a Federal Court. Such a court assumes certain cardinal facts. In the first place the Judges of the Federal Court are discharging the most onerous duty that any judge can be called upon to do; they may be adjudicating between the federation and a State for instance; they must therefore be removed from the influence either of the Federal Government or of the State Governments. The separation of the executive from the judiciary, is one of those reforms which has yet to be carried out in this country and it was surprising to find one at least of the British Indian delegates—a gentleman who happened to be a member of a Provincial Government, saying that the High Court itself was not quite free from executive interference. I am not prepared to express an opinion on the subject. Many of us find it risky to do so. But in any case so far as the Federal Court is concerned, it is agreed that it should be absolutely independent of these considerations. The independence of the judges can be secured in several ways. They are to be appointed not by the Federal Government but by the supreme authority, outside the Federal

Government, which is supposed not to have a bias in the matter. The Viceroy, the Crown perhaps, would appoint the supreme judges of the Federal Court. Their salary must not be subject to criticism by the legislature. It ought not to be the subject of rival contending political parties, one trying to increase it, another trying to reduce it on any consideration whatsoever, either of politics or because of the favourite treatment that the Federal Court had given to a Federal Government of a particular persuasion. Therefore we come back to the position which we are so familiar with—that the salary should be non-votable. Their tenure of office should not depend upon the good will of any official connected with the Federal Government or of any Minister, and therefore it must follow the usual practice with reference to all these judges, that they hold office during good behaviour and for a certain age period. The old idea that judges can retire when they like, and they ought to be in office as long as they like, has been given up in many countries—even in England where judges could sit till 90 or 95, they find it rather inconvenient. In this country, particularly, an age of retirement is considered to be not an un-essential thing, and therefore the age has been fixed at 65 for the retirement of the judges of the Federal Court.

The matters that would come up before them would be matters relating to disputes between State and State and between the federation and a State. There is also another matter which must necessarily come before a federal court. The interpretation of federal laws must necessarily come up before the Federal Court. Even as regards the ordinary civil laws administered by High Courts, if any question of law arises with reference to a federal law, the ultimate and final and decisive interpretation must be with the Federal Court. There are two methods which have been suggested in this connection. Either the case which involves a federal law may come on final appeal to the Federal Court from a High Court, in which case the Federal Court will decide not merely on the law involved but also on the merits of the case; or if a decision on the merits of the case is not desired or is not considered necessary, then the High Court can state the case—a procedure well known to lawyers, even at present where some

inferior courts can state a case and send it up to the High Court for adjudication on the mere point of law.

Now this distinction is important from another point of view. The States refused to have their judicial system in any way mixed up with the judicial system in British India. They were not prepared to submit their judges of the Chief Courts to the appellate authority even of the Federal Court; and therefore they stated that while they were prepared to come into the federation and be adjudicated upon by a Federal Court on matters arising between States, or between a federation and states, where a federal law was involved, they were only prepared to have their judges "state" cases for the decision of the Federal Court. It means that if there was an issue between A and B in the Chief Court of Mysore, the matter under discussion would not go up before the Federal Court on appeal; but the Mysore Chief Court will merely extract the legal position, leaving aside all matters connected with the merits of the case, state that legal position to the Federal Court and ask it to adjudicate on that point of law. When an adjudication has been made on the point of law, the Mysore Court will take it as a judicial decision with reference to that legal question, and give its further and final decision on the merits of the case, applying that principle of law to the case. This is the extent to which state authorities were willing to come into the system of federal court and therefore it had necessarily to be left in that incomplete stage.

A matter of greater concern to the British Indian delegates was the establishment of a supreme court apart from the Federal Court. At the present moment, the decisions of the High Courts are subject to the appeal of the Privy Council—not under the King's pleasure, but there was a rigid right of appeal with certain limitations. They stated and they have been stating it for several decades, that it was anomalous that in matters of domestic concern, a tribunal so far removed from the country should sit in judgment. Political ideas of dominion status also gave a certain emphasis to this demand, and it was urged that dominion status involved the establishment of a supreme court, having as far as possible final rights of appeal over the decisions of the High Courts, even as a federation involved the establishment of a Federal Court. The

suggestion was therefore made that the Federal Court which must be established, and which could not at the start at any rate have sufficient work to do, should also form itself into a Supreme Court, and hear appeals regularly from High Courts, subject always—and you know that that is necessary after that decision of Mr. Joseph Chamberlain on the Australian constitution—subject to the King's prerogative to allow a case to the Privy Council in exceptional circumstances. This was the suggestion put forward by many British Indian Delegates but unfortunately there were a few, who did not wish the present connection of the Privy Council to be removed; and in between these two extremes, was the necessarily mediate expression of opinion that while the constitution may provide for a Federal Court to be established immediately and perhaps a Supreme Court which may be established in course of time by the Federal Legislature, there ought not to be any attempt at imposing both these courts on India at the same time by the constitution. Ultimately the result will be that the Federal Court, its powers, its constitution etc. would be embodied in the constitution; and a skeleton scheme for the Supreme Court, its constitution and powers would also be mentioned in the constitution; but while the Federal Court will come automatically into existence with the establishment of the Federation, the establishment of the Supreme Court in actual working order will be brought about by legislation passed in the future federal legislature; and at this stage, we may leave the third constituent element of a federation—a Federal Court.

### FUNDAMENTAL RIGHTS

Speaking of the Federal Court, one is necessarily reminded of that subject which has attracted so much attention, the question of fundamental rights which has been the subject of discussion for many years. All the Indian constitutions that have been drafted by various individuals and committees have embodied this provision of fundamental rights. The Nehru Committee was one of those bodies that tackled this question in framing a constitution. Its proposals, I am bound to confess, come very near the proposals that have been ultimately accepted by the R.T.C. at its various sessions.

The Nehru Constitution laid emphasis on this question of fundamental rights and you will find a section where it is said that specific rights shall be granted to every citizen. These rights belong to two or three categories. They are rights relating to property, rights relating to person. The person of the man is inviolable. His house is his castle and cannot be entered into. All citizens are equal before the law; there shall be no distinction between men and women and so on. These rights were considered fundamental and must be incorporated in the constitution and should form part and parcel of the constitution that has to be established. When this question came up before the R.T.C., a very curious and altogether surprising position arose. In the first place, after, as I said, years of debate in this country, they had been incorporated in the Nehru Constitution. They had been touched upon at various sessions of the previous R.T.C. In fact, the Prime Minister in one of his closing perorations—and Mr. Ramsay Macdonald can make peroration as no other orator of the day can—referred to this question of fundamental rights, and said no minority will be allowed to enter the federation or will be subject to a Federal Government unless and until these fundamental rights were guaranteed to it. And so when the Consultative Committee was formed in this country—that small nucleus of those who had taken part in the R.T.C. discussions—they formulated a number of fundamental rights and suggested that they should be incorporated in the constitution. I shall read to you some of these fundamental rights: All citizens are equal before the law; women shall have equal civic rights as men; no citizen shall be deprived of his liberty nor shall he be tried save in accordance with the law of the land; every person shall have the right to practise his own religion and so on. When this question came up before the Conference, Lord Reading first tried to ridicule it, and later, Sir John Simon, the Foreign Secretary, for the first time, took part in the debate, and the circumstances under which he took part in the debate gave specific weight and gravity to his pronouncement on the subject. It was well known that Sir John Simon, with his preoccupations at Geneva, was not able to attend many sessions of the R.T.C. That gave a special weight to his contribution.

Sir John Simon took up this question and examined it from various points of view. He said in the first place, the British constitution does not recognise such a thing as fundamental rights. That is foreign to all conceptions so far as the British constitution is concerned. You may have certain rights growing up in practice; it is perfectly true that the Magna Charta laid down certain propositions, but they are not propositions which are binding to-day. The conception of the British constitution implied the sovereignty of Parliament. Parliament can pass any laws, abrogate any laws and amend any laws. Whatever rights do exist, Parliament can abrogate them. If fundamental rights are to form a feature of the constitution, they are so fundamental that no constitution can alter them. You talk of the right to have a writ of Habeas Corpus. That is the right which comes prominently to one's mind when this question is concerned. It is true that that right is a part and parcel of the law of the land, because Parliament passed it in 1781 or thereabouts, giving this right to the people. But it can be amended and it can be repealed at any time and it can be suspended by Parliament. As a matter of fact, during the War, this Act was suspended, so that the fundamental right, as you call it, does not inhere in anybody as such. In the second place, he said, it was all very well for fundamental rights to be talked of when autocracies were ruling, when sovereigns who did not yield any privileges to the people were on the throne and were dispensing law and justice as they pleased. But when you have a Parliamentary system of government, when you are having your own responsible ministers, where is the necessity for fundamental rights and fundamental guarantees? You speak of such-and-such-a right being granted to the people. Who, asked Sir John Simon, are going to guarantee them? The responsible ministers? The responsible legislature which is equally bound by the mandate of the people who elect the representatives? Therefore the conception of fundamental rights is utterly foreign to a constitution based on this parliamentary system of responsible government. You can think of fundamental rights in autocratic states; a sovereign can, as a matter of clemency, as a matter of grace, or having been compelled by the voice of public opinion and by a rising

rebellion in his State, issue a proclamation saying, "I hereby guarantee to you such-and-such a right, and in all actions that I do hereafter, I shall so conduct myself that my actions shall not impinge upon those rights". But in the constitution we are evolving here, it has no place.

Thirdly, he said, that there were only two possibilities with reference to fundamental rights; either they are of a justiciable nature or they are of a non-justiciable nature; either they could form the subject-matter of litigation and adjudication in a court of law, or they are not. Take the first right: "all men are equal before the law". On what ground can this form the matter of adjudication in a court of law? How is this right to be enforced in any court of law? It is so general, has no specific application, that it cannot by itself form the subject-matter of any litigation. Therefore in describing these laws as fundamental, you are really misleading the citizen and giving him a sense of guarantee and security which you really know he does not possess on the enunciation of these laws. That was the diatribe that Sir John Simon hurled at those who thought of these fundamental rights. The right of free expression of opinion is guaranteed, but are you sure that this right of free expression can be granted at all times? There are limitations, obvious limitations, which a moment's reflection will show you. You cannot have slandering going on in the name of freedom of speech. There is the law of libel; you cannot abrogate it merely by saying that a fundamental right of freedom of speech inheres in every citizen. Neither the spoken word nor the written word is so absolutely free as you seem to imagine in an enunciation of these fundamental rights in the constitution. Take again the question of blasphemy on which particularly, there is extreme difference of opinion. Professor Laski has said that the whole law of blasphemy is antediluvian and must be abolished. He says that every person has got a right to practise his own religion, to call himself an atheist, free-thinker or anything he likes. Or take another instance, that men and women have equal civic rights. Now in the condition prevailing in India, it is true that women have not equal rights with men. Do you mean to suggest that all your customary law, Hindu Law, your Muhammadan

Law, based on centuries of inequality and unfairness, is done away with by this one section that you have put in the constitutions? These are some of the questions which Sir John Simon asked. It had a very distinct effect on a certain section of the delegation.

But after all, the position was not so hopeless as Sir John tried to make out. It was argued from the other side—and I am trying to put these arguments and counter-arguments fully as this is a question of vital importance, and the more we have the assistance of academicians in the examination of these fundamental rights, the better it would be. It was argued on the other side, that after all is said and done, if the position was so simple as Sir John thought it to be, if it was absurd to have fundamental rights embodied in the constitution, many constitutions have committed this absurdity, and many writers and thinkers who ought to know much on these subjects have committed the very absurdity that Sir John Simon has been condemning. There is no post-war constitution—at any rate that is my recollection—which has not got a long list of such fundamental rights. Germany heads the list with the Weimar constitution containing a long list of fundamental rights. The subjects of Czechoslovakia, the Esthonian, the Bulgarian and almost all other subjects of post-war States of Europe have got such a list of fundamental rights. There are some fundamental rights even in the American Constitution and therefore, from some points of view at any rate, it seems that it is not a simple matter to dismiss the whole idea of fundamental rights. Secondly, and this is important, fundamental rights, taken at their lowest value, can at least be said to establish a social philosophy, to lay down a set of rules of conduct as much for legislatures and for Governments, as for individuals. The fact that these laws are termed as fundamental is of importance, as embodying at least, if they are not justiciable rights, a code of social philosophy for the conduct of every one. Above all, when a legislation is placed before a legislature, even though it may violate a fundamental right, the very enunciation of these principles will make the legislature hesitate in accepting these laws. It will make the legislature and the Government not to<sup>c</sup> precipitate legislation on such

subjects and not to hurry through those bills which may violate such rights of the individual. Moreover there is a consideration which is of peculiar importance to India. We have been living in an age when fundamental rights have been abrogated, or have never been in existence. Freedom of the press has often been violated, by legislation no doubt. Freedom of association, freedom of speech have also been violated. Therefore British Indian delegates asked for them, if for nothing else, at least to convince the people that there is a new dawn for our country; that the constitution which we are trying to frame means the end of the old state of affairs, and the inauguration of a new and more hopeful state of affairs. It seems right and proper that these fundamental rights should be embodied in the constitution. It would clearly demonstrate that the age of bureaucracy has ended, and the age of democracy has been ushered in; it will educate the people and make them conscious of their own rights, a consciousness which many of them do not possess. Such were at least some of the arguments that were advanced from the British Indian side.

Again, it has been stated that there are minorities which feel unduly pessimistic as to the new state of things and apprehensive as to their position in the new body politic. It is but right that to the extent that we can, guarantees should be given to them, that their religious practices will be observed unhampered; that they will have education in their own languages and so on. These are rights which they value very greatly, and the enunciation of principles embodying these rights would go far to make them realise that under the new constitution they will also have a place in the sun. These considerations far outweigh all those theoretical objections which may be advanced against the enunciation of fundamental rights. This question was looked at from both points of view, and ultimately it was decided that the question should be further examined and an attempt made to separate justiciable rights from non-justiciable rights. Not that non-justiciable rights should not be embodied in the constitution, but that it must be made more clear what are justiciable rights, so that people may realise what their real rights are, and what are their legitimate hopes and aspirations.

With reference to this question, I have further to point out that so far as the State delegates were concerned, they were not agreeable to the enunciation of any fundamental rights whatsoever. I have often asked what have the State subjects to gain under this? So far as fundamental rights are concerned, at a very early stage, State delegates said that if you are going to incorporate them in the constitution, begin this section with a preliminary remark 'This chapter shall apply only to British Indian Provinces'. They made it very clear; there was no equivocation on their part. One of my friends of the British Indian delegation said the State Rulers take it that their subjects have all the fundamental rights and need not have any assurance given on the subject. And we had to accept the position that so far as fundamental rights were concerned, it could only be applicable to British India and it could not be made applicable to Indian States.

I am conscious that I have left out of my lectures many salient features of the constitution. I have not referred to the question of safeguards or the question even of defence. The position with reference to defence is simple. Defence is a federal subject and as I said in my first lecture, one of the reasons why an All-India Federation has been thought of was because military matters like the defence of India were more easily solved in an All-India Federation than in a purely British Indian Federation. But for the time being, owing to extraneous conditions and circumstances, owing to the fact that the army is largely composed of British personnel so far as officers are concerned, it was thought that the army could not immediately be handed over to a federal minister. The subject is a federal subject; it is administered by the Federal Government, if in that federal government, you include also an irresponsible member called the Army Member. There will be a joint Cabinet, composed of the Army Member and of the responsible ministers. The Army Member will not be responsible to the legislature but he will be responsible only to the Viceroy who will administer the subject of the Army as a direct representative of the Crown. In other words, the Army is to a certain extent a Crown subject though it is also a Federal subject. From that distinction flows a number of consequences, some of which have

been slightly mitigated, but others have still to be frankly faced. If the Army is going to be under the control of the Viceroy, if the obligations relating to the Army are to be with the Viceroy, a curious position arises. What about military expenditure? The legislature may cut down the Army budget, as it is called, or may reduce it to a very small proportion. How is the responsibility of the 'Reserved Member' and of the Viceroy to be then discharged. I personally am convinced that one of the great mistakes that is being done by this Government is to make the Army a concern of their own, instead of being a concern of the people. In no other country in the world is this phenomenon to be noted except in India, that the people of the country have no concern with the Army, have no sympathy with the Army; and on the other hand are hostile and utterly antagonistic to all the expenditure that is incurred on the Army. The Army should be the pet child of the State. It is the one living element for the safety and security of them all. It is not the policeman in the street with his baton that is the real preserver of peace. It is the silent watchman on the lonely tower on the frontier of India that is the real saviour of the country. In India no less than in other countries is the Army the real saviour of us all. We have been preserved from annihilation, from invasions which were our lot time and again in centuries past, because of a splendid army; and the Indian Army is one of the most splendid of military forces in the world that is guarding our frontiers. But how few of us are conscious of the fact and how few of us think of the Army in terms of saviours! We think of the Army when it moves in our streets—swaggers if I might say so—when it comes down into our streets to quell rebellions and riots—and that is the only occasion when we have anything to do with the Army—we more often abuse the Army than praise it. This is largely due to the somewhat short-sighted policy which the Government has been pursuing of lowering a curtain and placing the Army behind it, not letting the people know of its activities, its general policies, and the purposes which it is intended to serve; the sort of combats that are going on from day to day on the frontiers of India; and allowing not even the legislature of the land, the select chosen people, to have any insight into military affairs. It

looks as if for some time longer, this blind policy is going to be continued. We tried to mitigate the effect of this policy. For instance it was proposed that owing to the fact that the Army was a reserved subject managed by the Viceroy, there should be a contract budget, that is to say, the amount required for military expenditure should be fixed for five years and that there should be no variation during this period; that the amount whether it was 40 or 45 crores, should be handed over from the Treasury without any question being asked as to its need or how it was going to be spent. Now that involved that the whole process of expenditure on the Army would be outside the purview of any one in the legislature. The Army budget has no doubt been placed before the legislature for discussion; it has even been suggested that instead of one day being given to the Army budget, the Army budget will be presented in sections such as the Civil budget is to-day being presented. But what good is it to present any budget, if the method of arriving at the figures is not understood by the legislature; if we do not know the purposes for which this expenditure is incurred? We know the civil administration; it comes into direct touch with us; we have more often to come necessarily and inevitably into direct touch or conflict with it; and therefore we can understand the civil administration; But with reference to the Army, there has been no such opportunities and that was why the suggestion was made—that instead of having this contract budget, there ought to be an opportunity for the responsible Government to have its influence felt in framing the budget year after year. Suppose again, an economic crisis of the kind that we are passing through were to arise and it was necessary to cut down the military expenditure, but military authorities were not prepared to do so. How can it be done? There was no force which could compel them. These were the considerations which made us suggest that that system of contract budget, which we had agreed to earlier, was not the most proper thing and that there should be constant connection between the Army Member and the responsible minister; that they should work really as a joint Cabinet, in spite of the fact that the Army Member was not responsible; that in framing the budget both halves should

join together and should discuss what should be ultimately allocated to the army.

In the second place we took up this position. With reference to various matters which have been transferred to responsible ministers the British side of the Government have asked for safeguards. They said, 'We are prepared to give you financial responsibility but let us have safeguards to meet such-and-such contingencies; we are prepared to transfer law and order, but let us have safeguards in case of such-and-such a contingency'. We accepted the position and to a certain extent, we have come to agreement as regards safeguards on those subjects. Now the Army stands in exactly the same position. We have given over the Army to you. We want safeguards. It is from our point of view now as necessary that safeguards should be embodied so far as the Army is concerned. You have accepted certain fundamental propositions; you have accepted that the Army should be a joint concern, not merely of the British Government but of India also. We want that to be translated in terms of safeguards. You say that the Indianisation of the Army at a growing pace should be assured; we want safeguards to see that fulfilled. Therefore with reference to the Army, it was consistent with the position of a reserved subject that we should ask for safeguards with reference to the three propositions which were unanimously laid down by the Thomas Committee on Defence at the first session of the R.T.C. Ultimately a comprehensive proposal was put forward. In England many military matters of policy are decided by the army, the War office and the military authorities. But there is one organization which is above all these organizations, called the C.I.D.—not the C.I.D. as we understand it in this country—but the Committee of Imperial Defence which is represented by various cabinet ministers and high military authorities and dominion prime ministers. Now we said with reference to the Army of India, we must have a Committee of Indian Defence. The constitution of that Committee may be somewhat as follows: the Army Member, the Commander-in-Chief, the Member for external affairs may sit on behalf of the Viceroy; we should have the Prime Minister of the Federal Government, the Chancellor of the Exchequer of the

Federal Government and probably the Minister of the Interior of the Federal Government sitting with them. This committee would decide the policies with reference to the military. It would also decide how far those three essentials which were laid down by the Thomas Committee were followed in actual practice and that decision will be laid before the Viceroy. In that way during the transition period, when the Army was supposed to be a reserved or Crown subject, we hope that to a certain extent the slow and steady pressure of public opinion will be brought to bear on the administration of the Army.

Now Gentlemen, I have really come to the end of my task. I have tried to tell you in these lectures what the All-India federal constitution is likely to be. It is not yet an accomplished fact; it has not been framed; it has not even been put in the shape of a bill; men's minds have to be constantly and vigilantly to be kept open to examine the matters which will ultimately emerge and to see how far they are acceptable; how far they require revision. But we must be sure that the essential agreements that have been accepted are carried out.

I should like to say one word more. Addressing an academic gathering, I may indulge in the luxury of a little prophecy. What will be the future of this constitution? How will it ultimately evolve? There has been a great deal of talk of safeguards; there has been very legitimate criticism of some of those agreements which have been entered into by one set of delegates or another. I have carefully avoided any reference to the question of safeguards, and with a little deliberateness probably. I was examining the essentials of the constitution and I must not therefore devote my attention to examining what I consider to be temporary and non-permanent features of the constitution. They may be embodied in it now, but I am as certain as I can be, that their disappearance is only a matter of time; and speaking to this educated audience, I thought I should occupy all the time that I had at my disposal in examining the fundamentals of the constitution and not be led astray by a detailed examination of safeguards. But you may say this. Safeguards there are, safeguards which may even hamper the working of the

constitution. What shall be our position? There is one observation that I should like to make; one reflection comes prominently to my mind. One of the greatest of philosophers has said that it does not matter what the constitution may be; it is the men who work the constitution that count. It is they that form the actual system of Government under which you have to live. It is their knowledge, their experience, their broad-mindedness, their firmness, their independence and their sense of fairness, that count in such matters. Not the system itself, however perfect or imperfect it may be, but the actual workers of the system. Burke says: "The laws go but a very little way. Constitute governments how you please; infinitely the greater part of it must depend upon the exercise of the powers which are left at last to the prudence and uprightness of ministers of State." And it is on those ministers of State, on the future legislators, that much depends in the working of the constitution. How easy it is, with safeguards or without safeguards, if you have a set of ministers and a set of legislators who hardly understand their responsibilities; are weighed down by authority; how easily will they carry out the wishes of an autocratic governor or an autocratic viceroy. It is not the safeguards that count most. If you have a strong, determined ministry—and I am not going into any controversial questions of modern politics at all—I am only trying to philosophize, and to philosophize with the help of you all, if you have got a strong ministry, a ministry of talents, and more than that, of character; if you have a set of legislators who understand the principles of government, and who try to carry out the mandate which they may receive from their constituencies, and in any case try to keep their conscience clear in the decision of those questions which may come before them, more than half the task has been done. Safeguards will fall into desuetude, naturally and inevitably, however strong the Viceroy may be. Remember this: safeguards are sometimes to be used no doubt; but the limitations of their use are obvious. Speaking on the question of safeguards, I said at the last session of the R.T.C., and if you will excuse this personal statement of mine, I will repeat it: I said, 'after all the discussion that has taken place, I am not very much perturbed by these

safeguards. I shall go back to my country and say that these safeguards mean nothing; that nothing tangible or essential has been lost by the safeguards. You will go back to your Parliament and when you have to reply to critics, you will say that by these safeguards, every administrative feature has been kept in your own hands. That is more politics. Each one of us has to try and comfort or to convince his own men in his own way; but barring that, I said, no Viceroy can use these safeguards without raising a severe political issue, without bringing about a constitutional crisis, if the use of those safeguards is not justified. If you can postulate a strong ministry, backed up by a strong legislature, then the Viceroy who uses the safeguards will bring about a constitutional crisis. The responsibility of the ministry—and that limitation will act more than any other limitation, than even the dictates from Whitehall, will prevent a Viceroy or a Governor from using the safeguards. Just look at the converse position. There are no safeguards in the constitution at all; everything is left to the free will of the legislature and the free will of the executive; but you have in office a set of ministers, picked at random, with no common policy, with no determined reason about them; and you have in the legislature various groups unconnected with each other, warring, trying to form cliques; what is the necessity for safeguards? A nod from the Governor, a whisper from the Viceroy, can more effectively than all the safeguards of the constitution get such a ministry to do whatever the Governor or the Viceroy wants them to do. So ultimately, the success of a constitution will depend to a very large extent on the sort of personnel that will be in office or in the legislature; and by the method of their transacting business will the constitution be a help or a hindrance to the nation.

Let me be permitted to give expression to another thought that is uppermost in my mind. The man of action, the politician is generally considered to be a singularly thoughtless animal, who plunges into life's stream regardless of consequences. As a politician I cannot be expected to subscribe to this view. We who were privileged to work at the R.T.C. had as our background a philosophy not unsuited to the

genius of our nation. The constitution was not an end in itself. It had in the first place to function; secondly, it had to provide channels for creative expression in our national life. Before our mind's eye the rising generation came in prominent view. What after all was the use of a constitution if it stunted their development, if it did not provide them with something, of which they could be proud, if it did not lead them into the paths of 'continuous initiative', compromises, initial adjustments, safeguards and reservations—were matters which yielded importance to one factor—that the constitution ought to be the means whereby the creative soul of India could find expression with advantage not only to herself but to the world. The last decade has witnessed a tremendous change in India; the spell has been removed from the changeless east and in its place there stands a swiftly changing orient—whose peaceful pathetic contentment is a thing of the past. It is a great thing to have a democracy; it is a still greater thing not to forget the purpose for which it has been constituted. From the newly created countries of Europe, after the treaty of Versailles, there comes a chilling message now in whispers, now in accents clear and unmistakable—'Representative Government and Democracy are shams; we will elect for new lamps.'

That is the gist of the message. Why has democracy failed in those countries? I am not a believer in the doctrine that democracy is fitted only for Teutonic races. If it were so, then Germany should be a model for other countries to follow and copy. There are many reasons why it has been a failure; one has not however been sufficiently emphasised, partly because forms of Government have mattered more and partly because it is as yet a subconscious tenet of democracy. The institution of Democracy is founded on liberty, equality and fraternity. Liberty and equality—equality of opportunity, have acquired prominence but fraternity curiously enough has been left out of the picture in most democracies. Those that laboured at the R.T.C. did not forget the last portion of this subconscious tenet, which is not certainly the least important and the keynote of the concessions to minorities which to an inexperienced observer will be reminiscent of timidity, is fraternity. The men of the morrow can do much to make

of democracy a success. Our social heritage leaves much to be desired. The centrifugal tendencies explicit and implicit, the various discrepancies as between communities, the superstitious adoration of effete regulations and finally the tragic treatment of man by man—these ought to go. In a federation two tendencies may be traced, the centripetal and the centrifugal. Let those who will lead our country at the dawn of a new era strengthen the centripetal tendencies and consequently create a social federation—the complement of a political one.

And seeing before me young men with an eagerness to dare and do much for their country and its future, I cannot do better than recall to you what a modern moralist Herman Herte makes Zarathustra give as his message—a very Nietzschean message.

‘You are the most pious of peoples’, cries the sage to the young men who crowd round him at the market-place. ‘But what gods has your piety created! The Kaiser and his drill sergeants! Learn to seek God in yourselves. Don’t hang your heads. Don’t whine for a man. The fatherland will not perish if you will only consent to grow up. You Germans are the most obedient of peoples. You have obeyed so easily, so joyfully; you never cared to take a step forward without the satisfaction that you were thereby fulfilling a command. Your country was covered with tables of the law and of prohibitions. How will this people obey when it once more hears voices of men instead of “most gracious commands”? Do not ask “what shall we do.” Listen to the voice within you. If it is dumb know you are on the wrong track. But if your bird sings, follow its note—to the uttermost solitude or the darkest fate’.

# PUBLICATIONS OF THE MADRAS UNIVERSITY

*(Text-books, Calendars and Question Papers have been omitted.)*

	<i>Name of Publication</i>	<i>Price</i>		
		Rs	A	P
1.	<b>Some South Indian Villages,</b> by Dr. G. Slater. Available at the Oxford University Press, Madras ... .. each	5	0	0
2.	<b>Sources of Vizianagar History,</b> by Dr. S. Krishnaswami Ayyangar. Available from the Superintendent, Govt. Press, Mount Road, Madras... .. each	4	8	0
3.	<b>Dravidic Studies</b> (available from the Superintendent, Govt. Press, Mount Road, Madras). Volume I ... .. 0 2 0 Volume II ... .. 0 8 0 Volume III ... .. 0 12 0 Bound Vols. I-III ... .. 2 4 0			
4.	<b>History of Sri Vaishnavas,</b> by Mr. R. Gopinatha Rao ... .. 0 10 0			
5.	<b>Psychological Tests of Mental Abilities,</b> by Dr. A. S. Woodburne ... .. 2 8 0			
6.	<b>The Nayaks of Madura,</b> by Mr. R. Satyanatha Ayyar. Available at the Oxford University Press, Madras ... .. 8 0 0			

TO BE HAD OF MESSRS.

C. COOMARASWAMI NAIDU & SONS, GEORGETOWN,  
MADRAS

7.	<b>A Study of the Optical Properties of Potassium Vapour,</b> by Dr. A. L. Narayan ... .. 1 12 0			
8.	<b>Absorption Spectra and their bearing on the structure of atoms and molecules,</b> by Dr. A. L. Narayan ... .. 0 8 0			
9.	<b>Investigations on the molecular scattering of light,</b> by Dr. K. K. Ramanathan ... .. 1 12 0			
10.	<b>The Kavari, the Mukari and the Sangam Age,</b> by Mr. T. G. Aravamudan ... .. 2 4 0			
11.	<b>Dravidic Studies—No. IV on the Octaval System of Reckoning in India,</b> by Dr. Mark Collins ... .. 0 12 0			

# University Publications —(continued.)

	Name of Publication	Price		
		Rs	A	P
12.	<b>Stone Age in India,</b> by Mr. P. T. Srinivasa Aiyangar, M.A.	1	0	0
13	<b>Anatomical and Taxonomic Studies of some Indian fresh and Amphibious Gastropods,</b> by Mr. H. Srinivasa Rao, M.A., D.Sc.	1	4	0
14.	<b>India through the Ages,</b> by Dr. Jadunath Sirkar, M.A., Ph.D.	1	8	0
15.	<b>Political Theory of the Govt. of India,</b> by Mr. M. Ruthnaswami, M.A., C.I.E.	1	0	0
16.	<b>Ante-natal, Natal, Neo-natal mortality of infants,</b> by Dr. A. Lakshmanaswami Mudaliar, M.D., L.R.C.P.	2	0	0
17.	<b>History of Pallavas,</b> by Mr. R. Gopalan, M.A.	5	0	0
18.	<b>Industrial Welfare in India,</b> by Mr. P. S. Lokanathan, M.A.	4	0	0
<p>This is a critical study of the work and achievement of the three great agencies of the workers' welfare—the State, the employer and organized labour. The first part deals with industrial legislation and the second describes the Welfare Work carried on by the employers, emphasis being laid on the need for a new orientation in the relationship between the employers and workers. In the third part a history of the Trade Union Movement is given.</p>				
19.	<b>Critical Survey of the Malayalam Language and Literature</b>	0	8	0
20.	<b>Records of the Indian Museum, Vol. XXXI, Part I,</b> by Mr. K. S. Padmanabha Ayyar	1	0	0
21.	<b>Restricted Relativity,</b> by the Rev. D. Ferroli, S.J., D.Sc.	4	0	0
22.	<b>Kuchalavirtham and Krishnavilasam,</b> by Mr. C. Achuta Menon, B.A.	1	0	0
23.	<b>Hindu Administrative Institutions,</b> by Mr. V. R. R. Dikshitar	6	0	0
24.	<b>Tamil Sangam Age,</b> by Mahamahopadhyaya S. Swaminatha Ayyar	1	0	0
25.	<b>Agastya in the Tamil Land,</b> by Mr. Sivaraj Pillai, B.A.	1	0	0
26.	<b>Purananutrin Palamai,</b> by Mr. K. N. Sivaraj Pillai, B.A.	1	12	0
27.	<b>Rasa and Dhvani,</b> by Dr. A. Sankaran, M.A., Ph.D.	1	12	0

# University Publications—(continued.)

	<i>Name of Publication</i>	<i>Price</i>		
		Rs	A	P
28.	<b>Sivadvaita Nirnaya,</b> by Mr. S. S. Suryanarayana Sastri, M.A., B.Sc. ...	2	8	0
	In this work, Srikantha's commentary is analysed and considered in great detail. The work is published critically with a translation, introduction, and notes in English.			
29.	<b>Sivadvaita of Srikantha,</b> by Mr. S. S. Suryanarayana Sastri ...	5	0	0
	A critical exposition of the philosophy of Srikantha, otherwise known as Nilakantha Sivacarya, the author of a Saiva commentary on the <i>Vedanta Sutras</i> . The first chapter determines Srikantha to be possibly a contemporary of Ramanuja. Chapters II-IV give an account of his philosophy, under the heads of Preliminaries, Criticism of Rival Theories, Brahman, the Jiva, and Release. The last chapter is an estimate.			
30.	<b>Taittiriya Pratisakhya,</b> by Pandit V. Venkatarama Sharma ...	2	0	0
31.	<b>Essay on the Origin of South Indian Temple,</b> by Dr. N. Venkataramanayya ...	1	8	0
32.	<b>Samkhya Karika,</b> by Mr. S. S. Suryanarayana Sastri ...	2	0	0
33.	<b>Indian Currency System, 1835-1926,</b> by Sir J. C. Coyajee ...	5	0	0
34.	<b>Political Theory of Imperialism,</b> by Prof. K. Zachariah ...	0	8	0
35.	<b>Vishnu Puranam,</b> Ed. by Mr. K. Ramakrishniah ...	1	8	0
36.	<b>Kavirajamarga,</b> Ed. by Mr. A. Venkata Rao ...	1	8	0
37.	<b>Spotasiddi,</b> by Mr. S. K. Ramanatha Sastri ...	3	0	0
38.	<b>Problems of World Economy,</b> by Prof. V. G. Kale ...	2	0	0
39.	<b>Lingannasasana,</b> by Pandit V. Venkatarama Sastri ...	1	8	0
40.	<b>Hindu Administrative Institutions in S. India,</b> by Dr. S. K. Aiyangar ...	6	0	0
41.	<b>Mauriyan Polity,</b> by Mr. V. R. R. Dikshitar ...	6	0	0
42.	<b>Studies in Cola History and Administration,</b> by Mr. K. Nilakanta Sastri ...	4	0	0
43.	<b>Historical Inscriptions in S. India,</b> by Robert Sewell. Ed. by Dr. S. K. Aiyangar ...	10	0	0
44.	<b>New Light on Fundamental Problems,</b> by Dr. T. V. Seshagiri Rao Naidu ...	3	0	0
45.	<b>Chronology of the Early Tamils,</b> by Mr. K. N. Sivaraja Pillai ...	5	0	0

# University Publications—(concluded.)

<i>Name of Publication</i>				<i>Price</i>		
				RS	A	P
<b>Tamil Lexicon :</b>						
Vol. I—Part I	...	...	...	4	0	0
" " II	...	...	...	4	0	0
" " III	...	...	...	2	0	0
Vol. II—Part I	...	...	...	2	0	0
" " II	...	...	...	2	0	0
" " III	...	...	...	2	0	0
Vol. II—Part IV and Vol. III—Part I	...	...	...	2	0	0
Vol. III—Part II	...	...	...	2	0	0
" " III	...	...	...	2	0	0
" " IV	...	...	...	2	0	0
Vol. IV—Part I	...	...	...	2	0	0
" " II	...	...	...	2	0	0

NOTE.—Copies can be had at half the marked price by :

- (a) Students of Colleges, High Schools and Oriental Institutions ;
- (b) Members of the staff of Secondary and High Schools ;
- (c) Pandits employed in Colleges provided that the applications are made through the heads of the respective institutions.